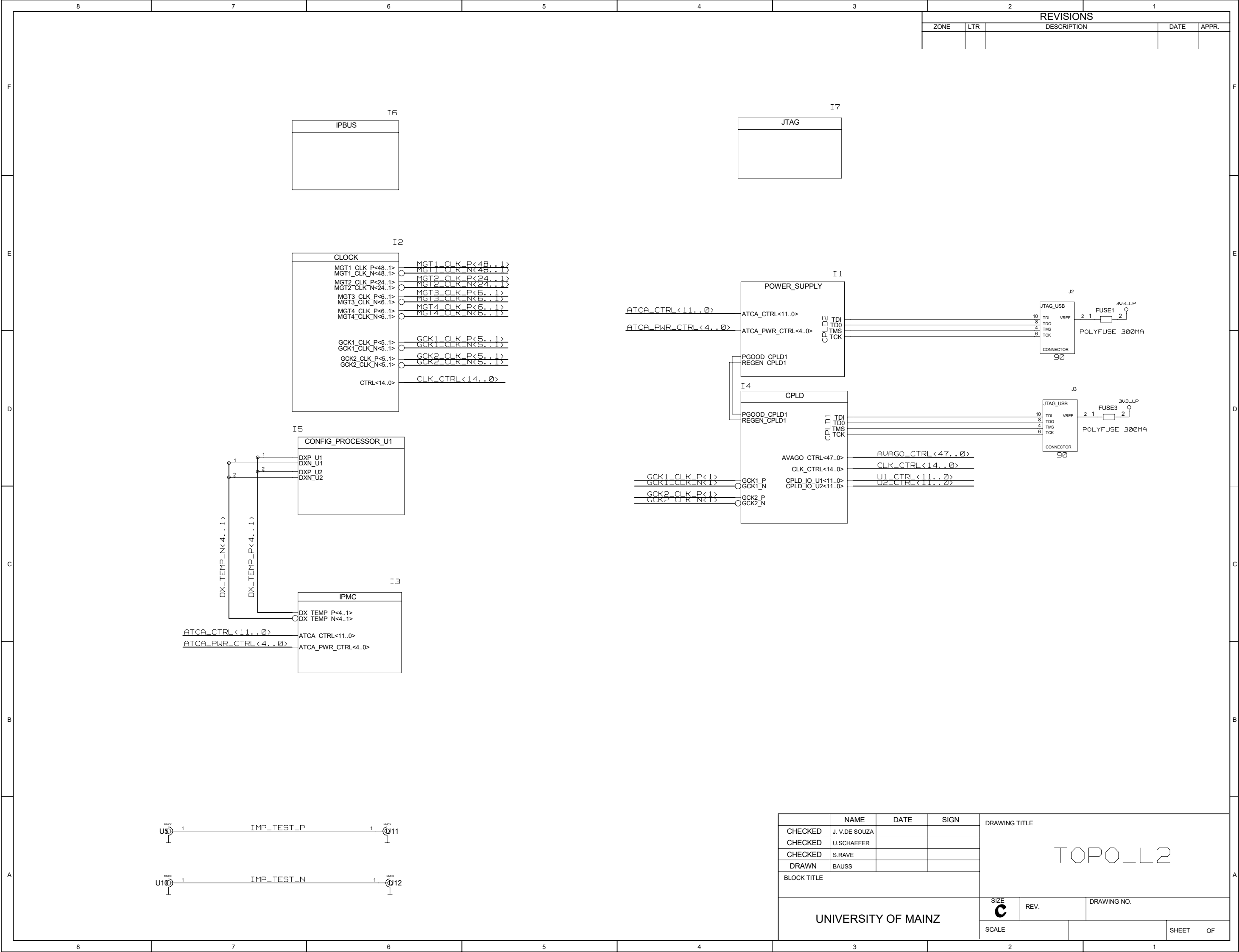
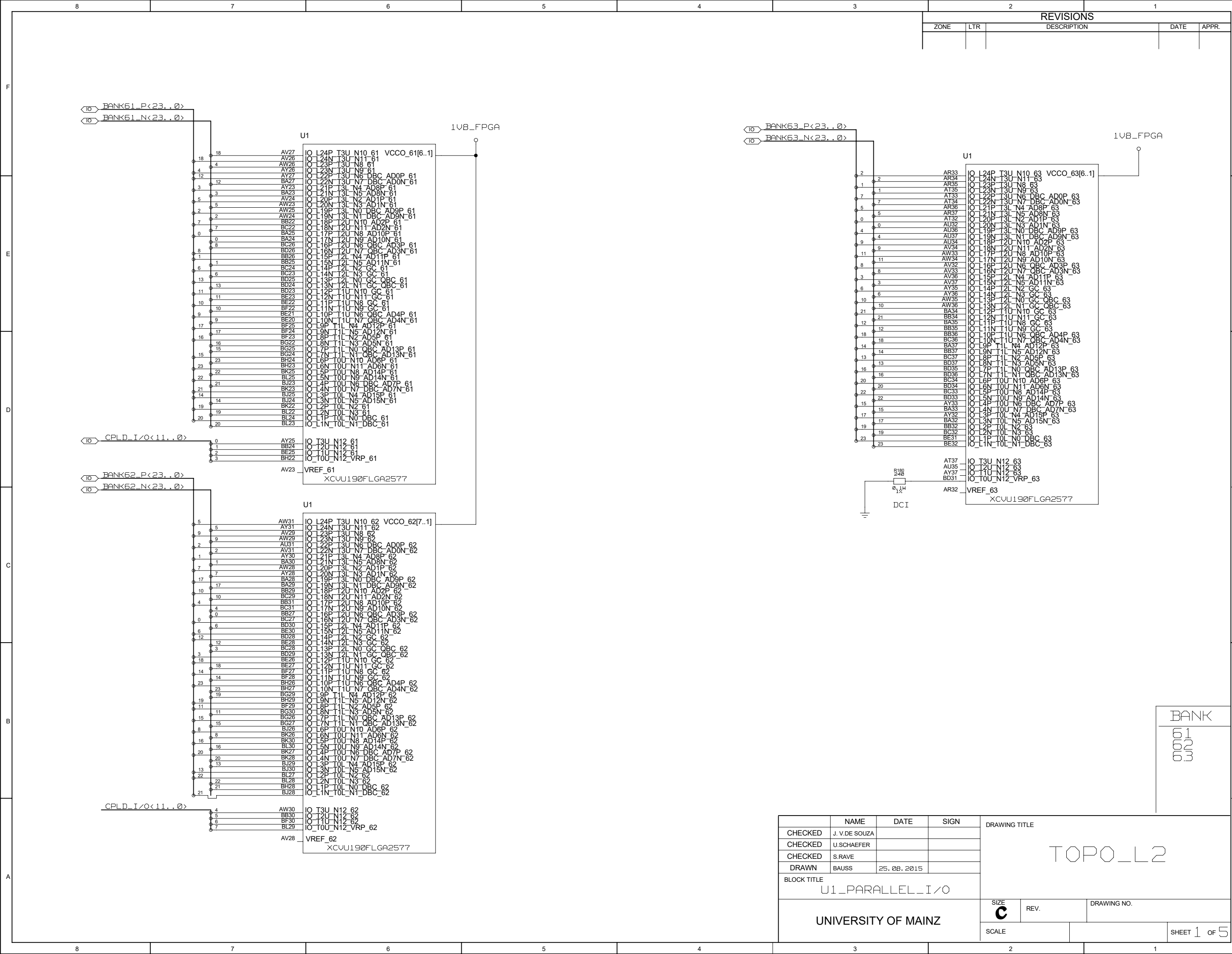
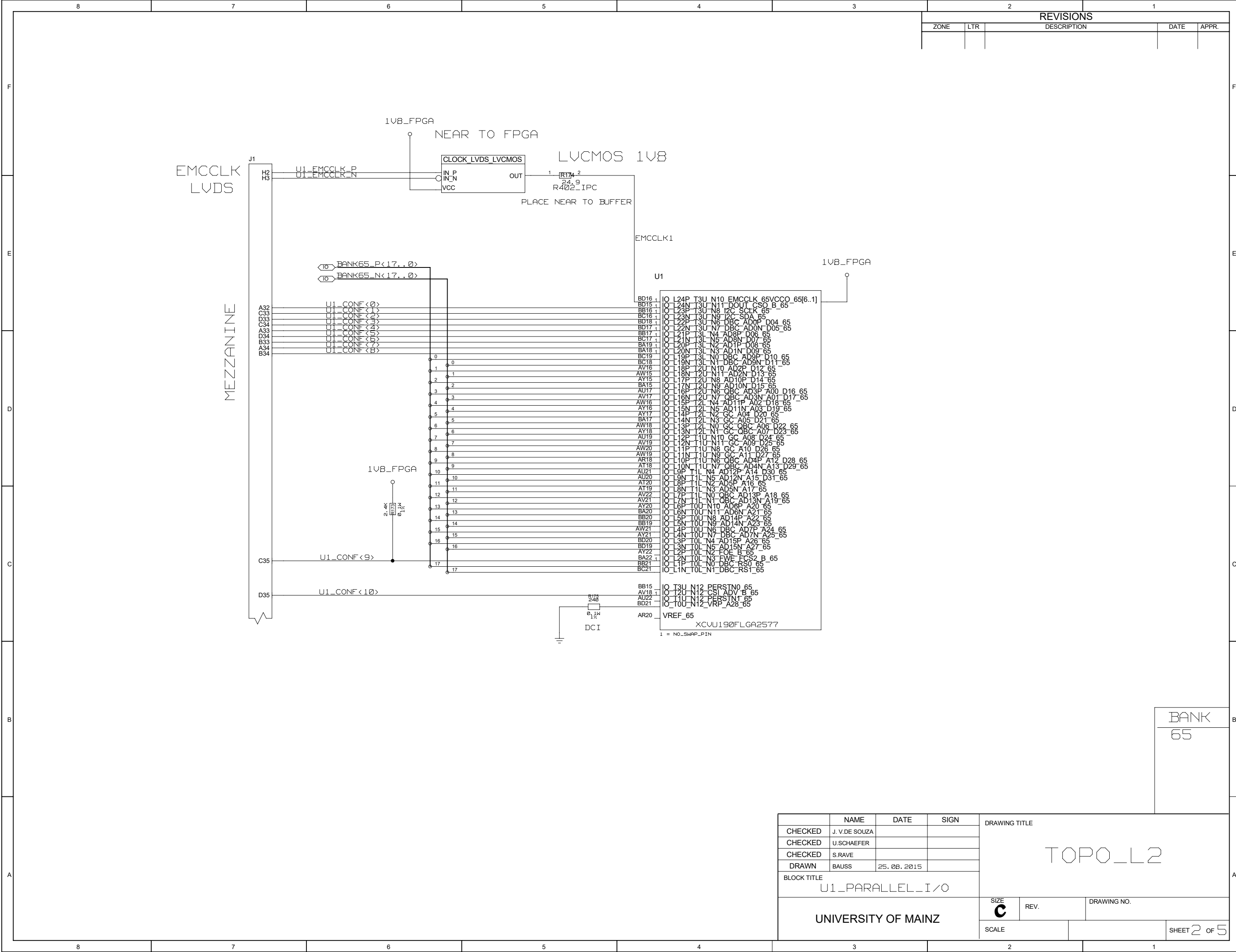
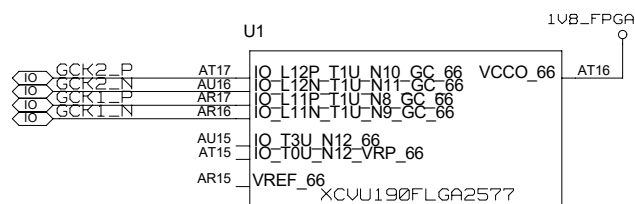
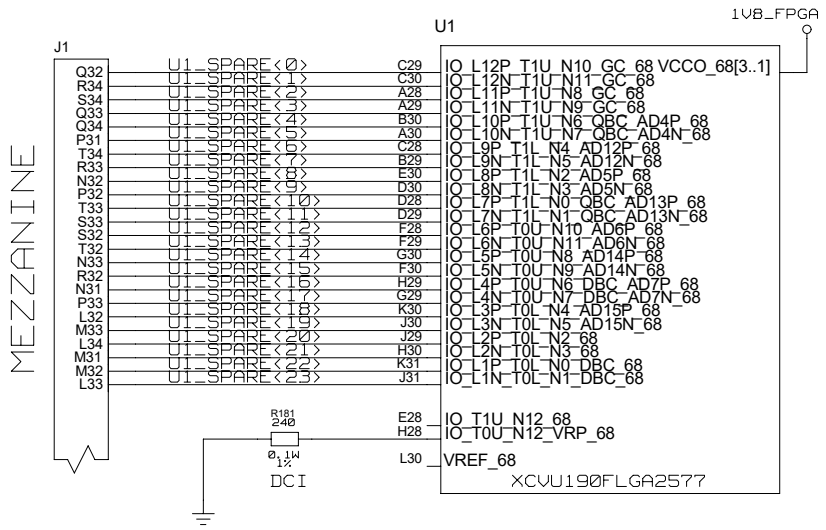






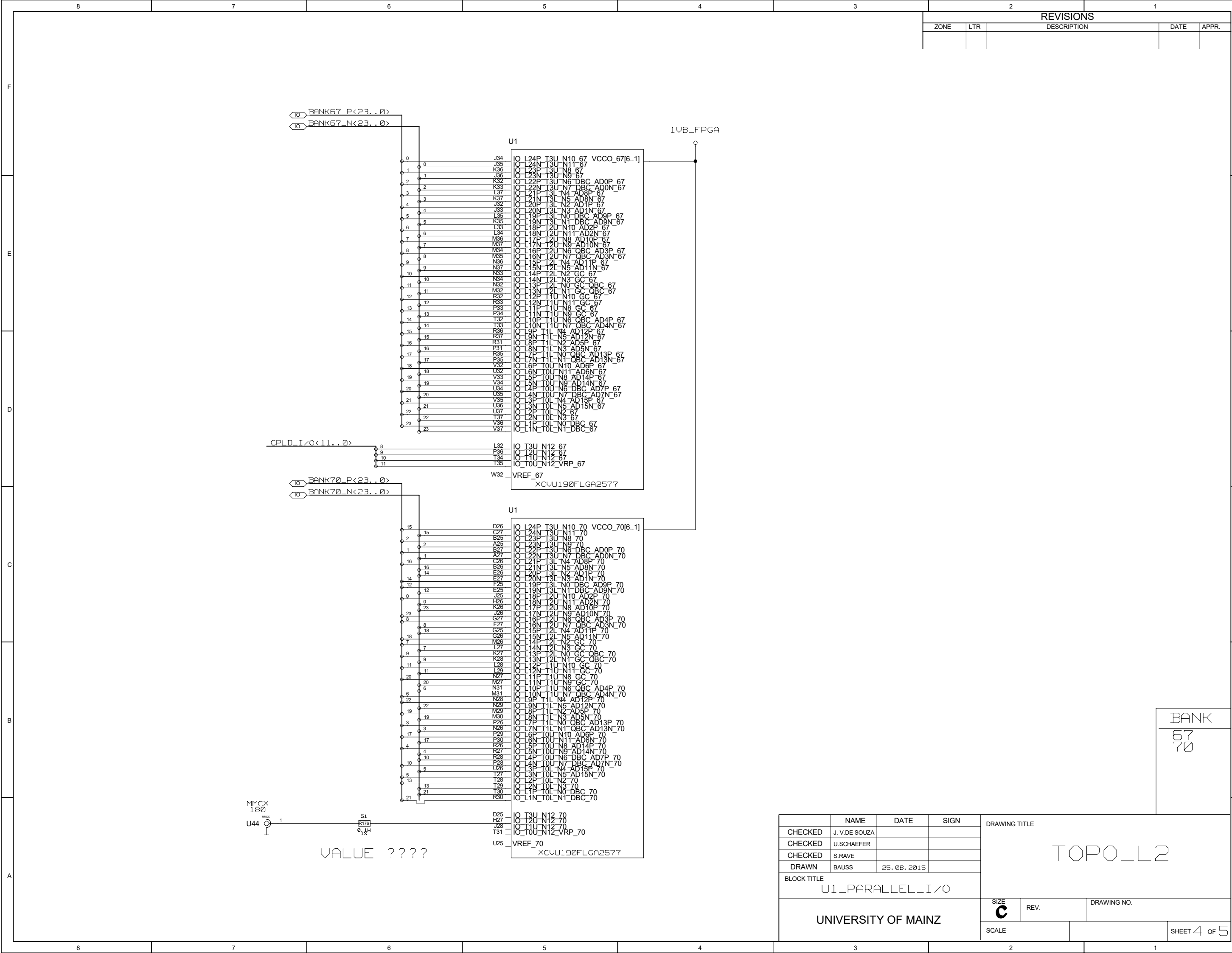




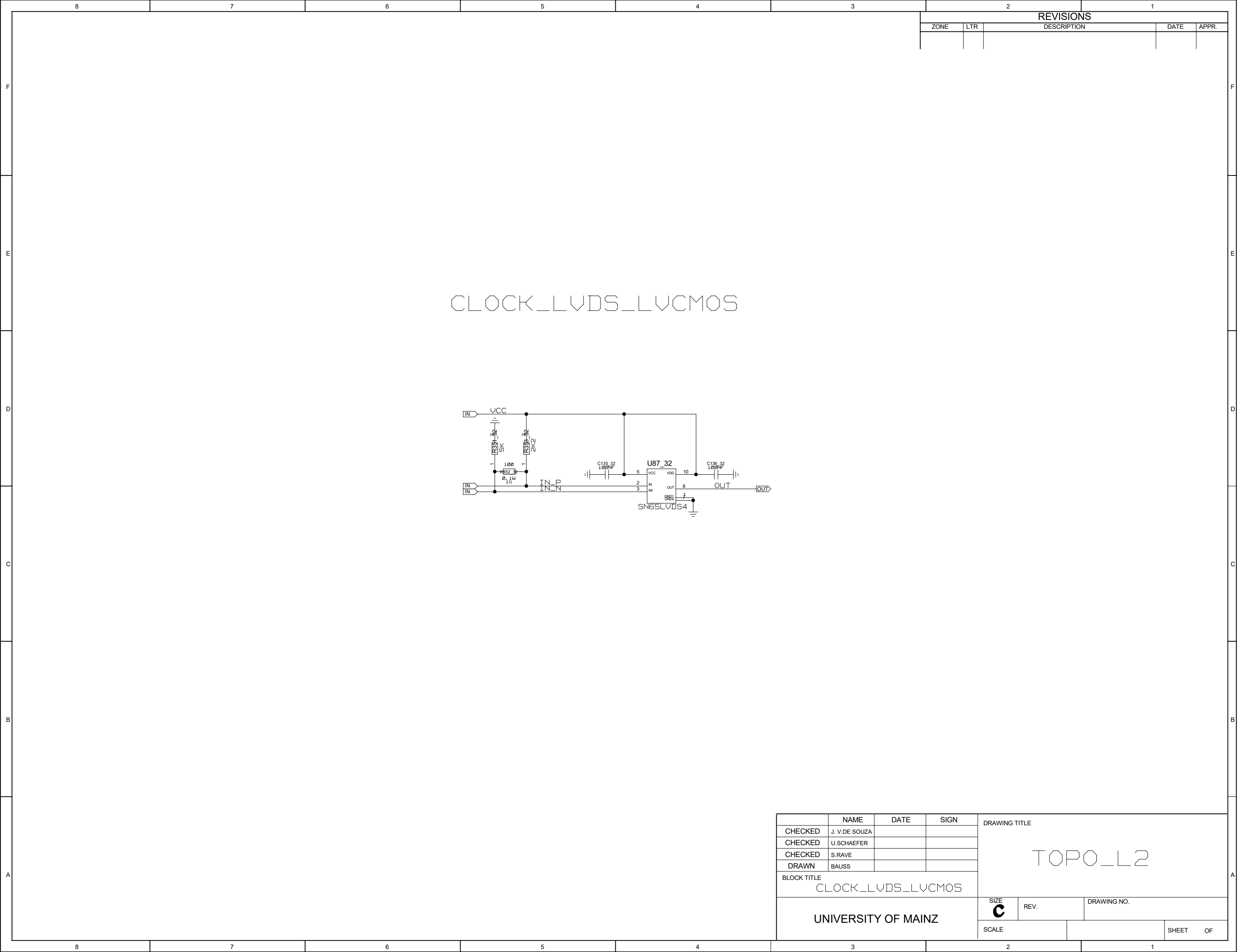
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

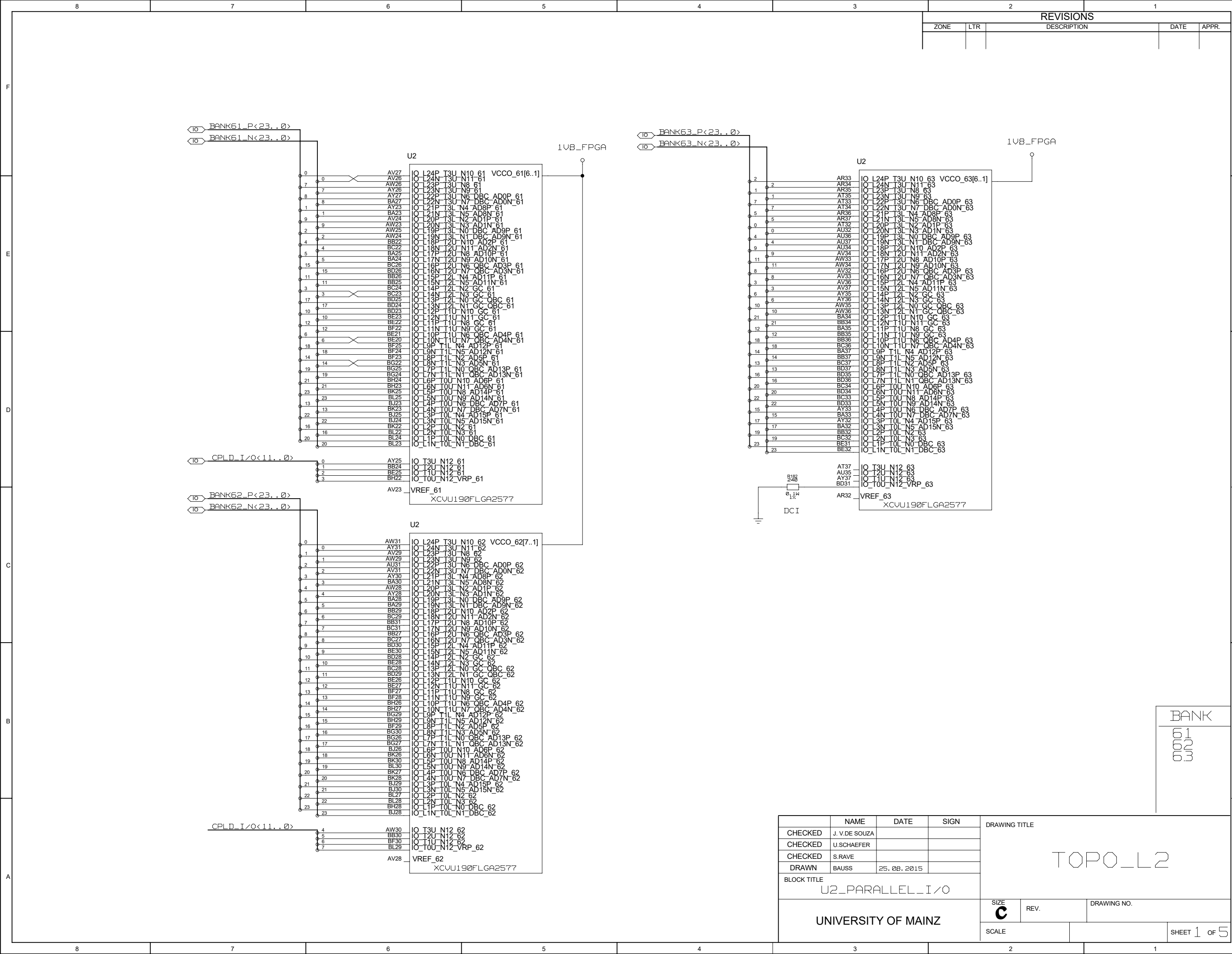
BANK
66
68

CHECKED	J. V.DE SOUZA	DATE	SIGN	DRAWING TITLE TOPO_L2	
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	25. 08. 2015			
BLOCK TITLE U1_PARALLEL_I/O				SIZE C	REV.
UNIVERSITY OF MAINZ				DRAWING NO.	
				SCALE	SHEET 3 OF 5



DRAWING TITLE				TOPO_L2	
CHECKED	J. V.DE SOUZA	DATE	SIGN		
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	25.08.2015		DRAWING NO.	
BLOCK TITLE				U1_PARALLEL_I/O	
UNIVERSITY OF MAINZ				SIZE	REV.
				C	
SCALE				DRAWING NO.	
				SHEET 4 OF 5	

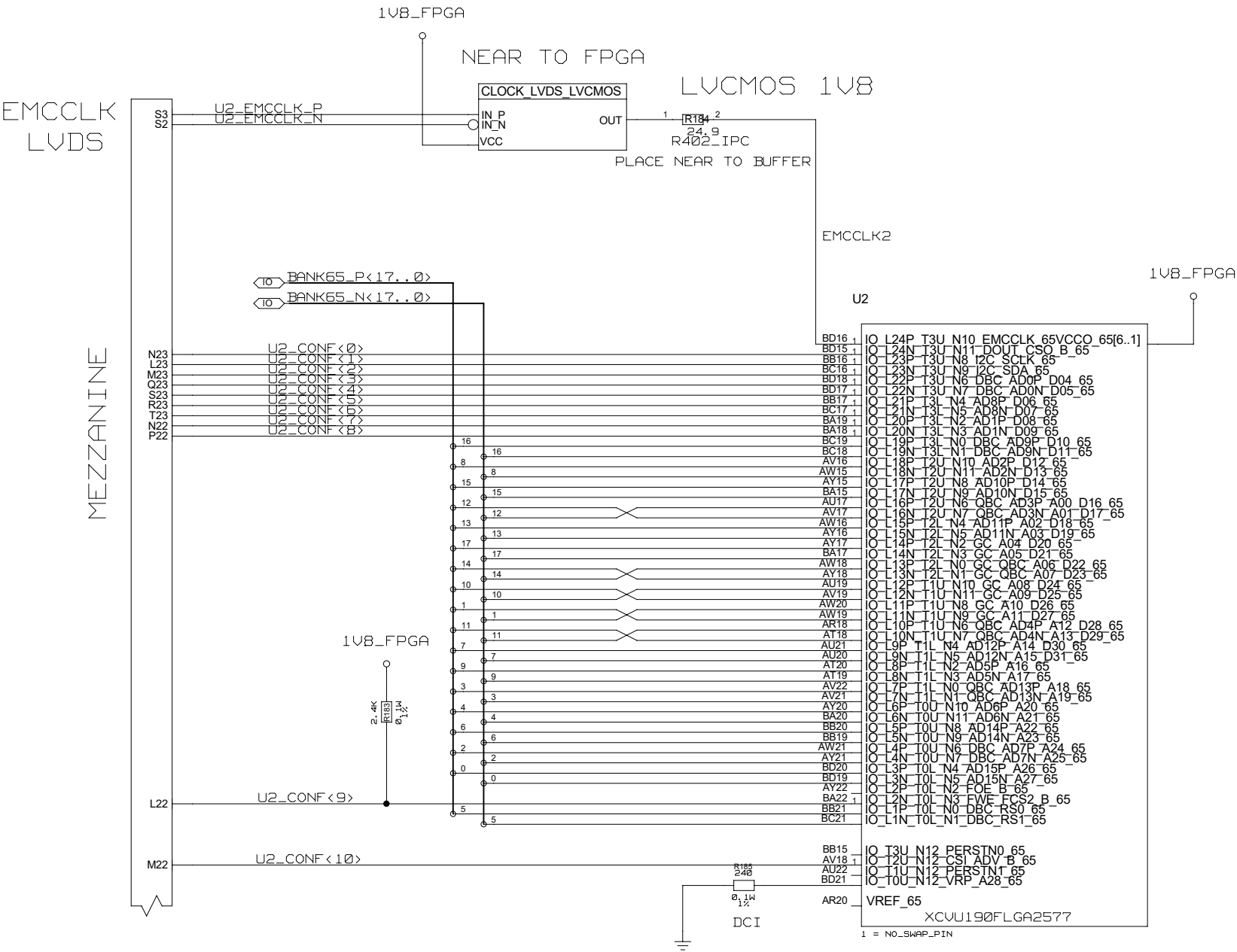




REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

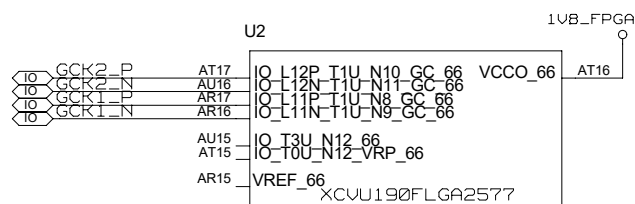
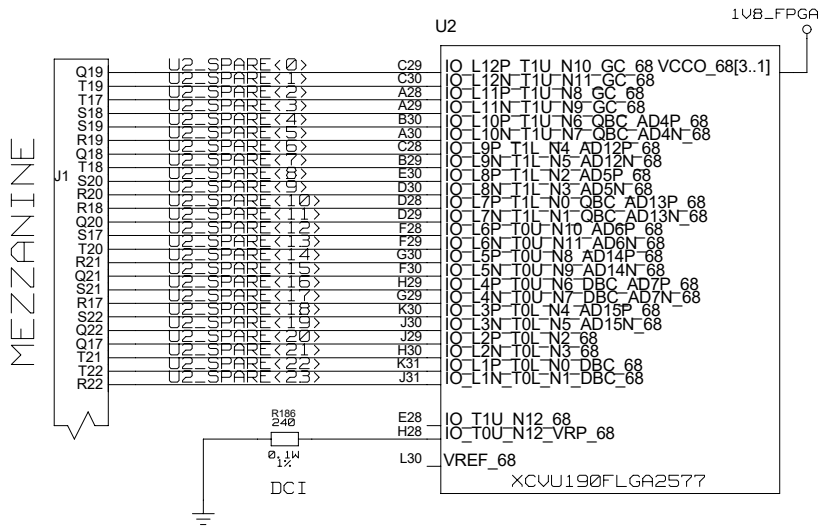
	NAME	DATE	SIGN	DRAWING TITLE TOPO_L2		
CHECKED	J. V.DE SOUZA					
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS	25. 08. 2015				
BLOCK TITLE U2_PARALLEL_I/O				UNIVERSITY OF MAINZ		
SIZE C		REV.		DRAWING NO.		
SCALE				SHEET 1 OF 5		

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



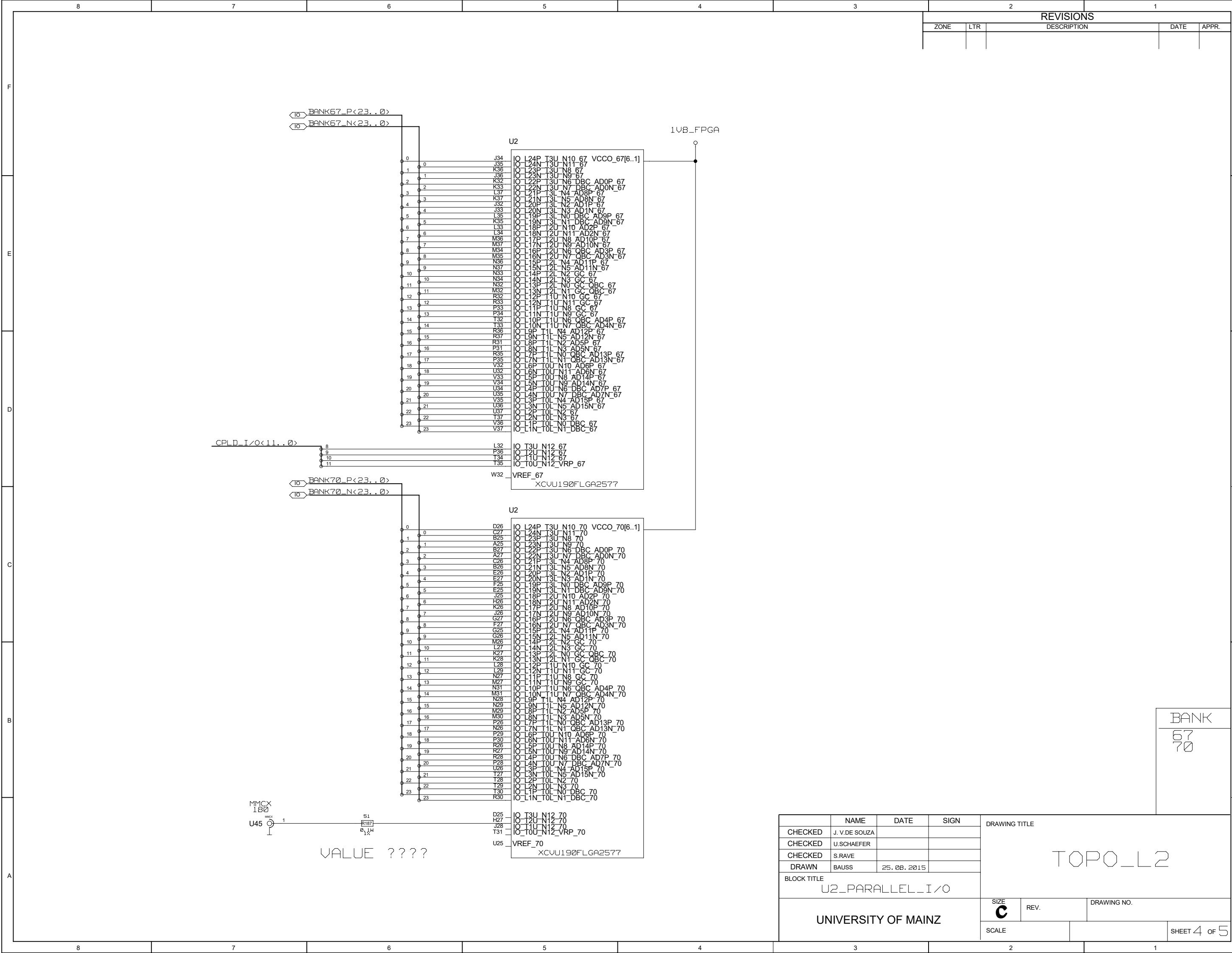
BANK
65

CHECKED	NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	J. V.DE SOUZA			TOPO_LL2	
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	25.08.2015			
BLOCK TITLE				U2_PARALLEL_I/O	
UNIVERSITY OF MAINZ				SIZE C	DRAWING NO.
				SCALE	SHEET 2 OF 5



BANK
66
68

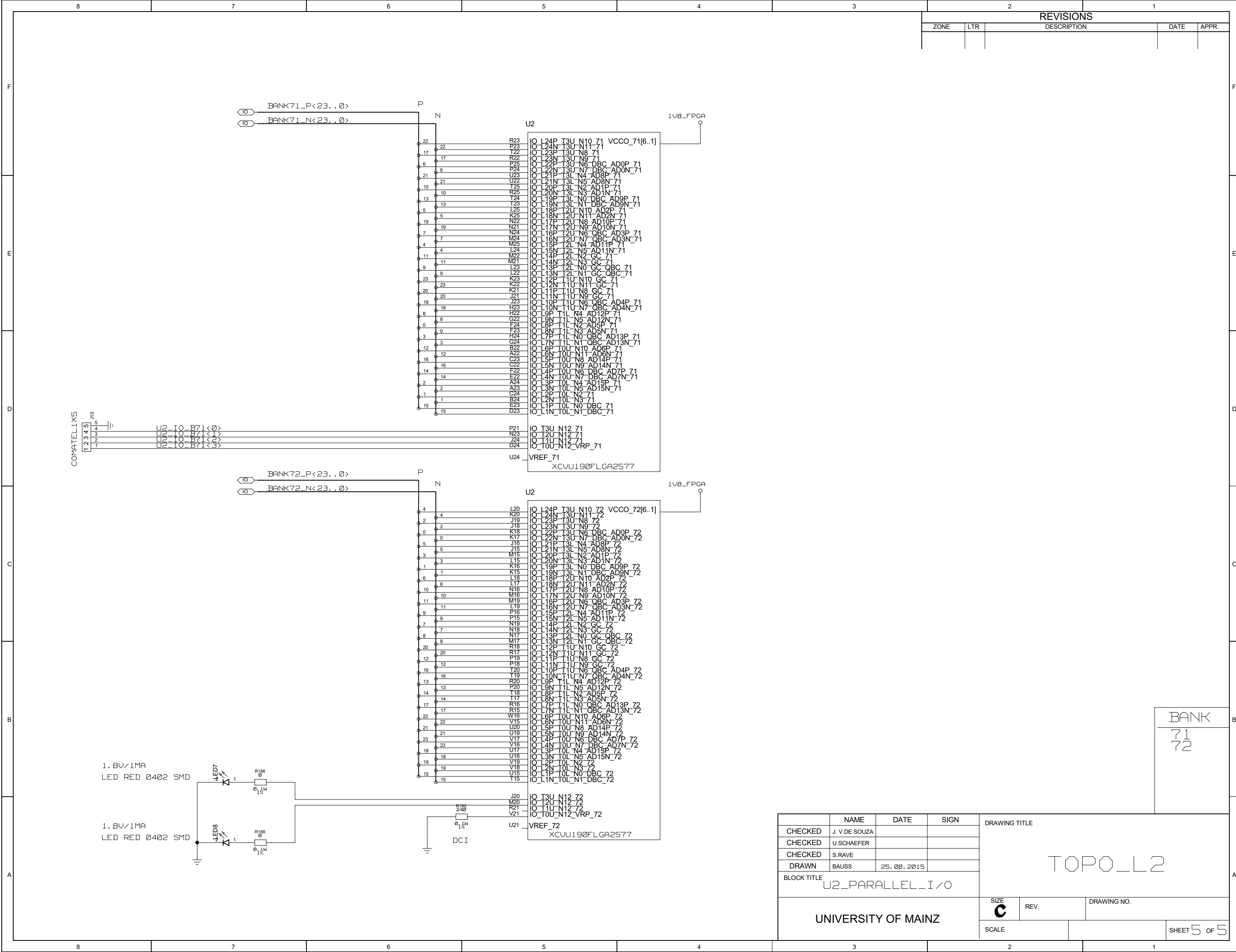
CHECKED	J. V.DE SOUZA	DATE	SIGN	DRAWING TITLE TOPO_LL2	
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	25. 08. 2015			
BLOCK TITLE U2_PARALLEL_I/O				SIZE C	REV.
UNIVERSITY OF MAINZ				DRAWING NO.	
				SCALE	SHEET 3 OF 5



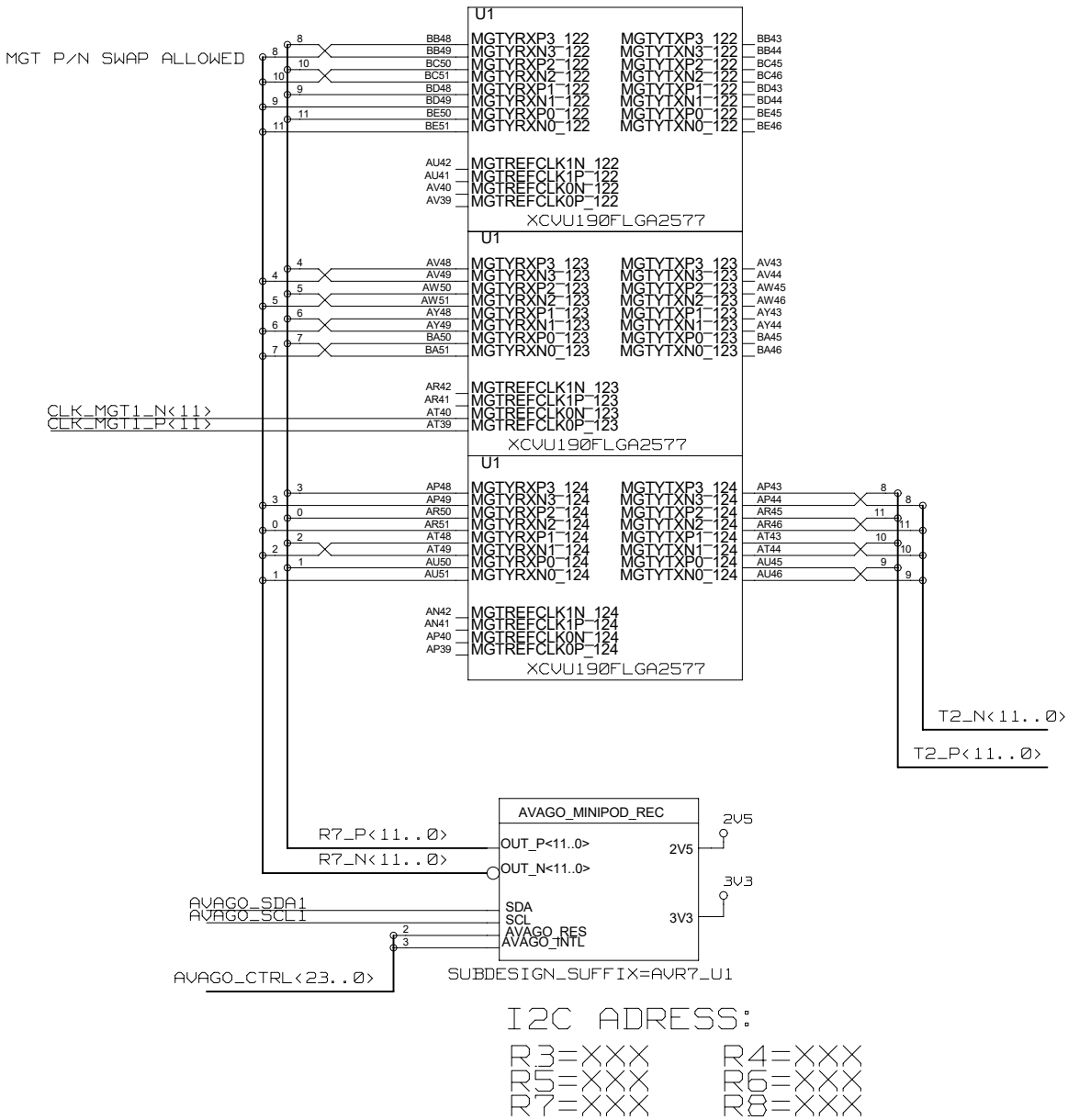
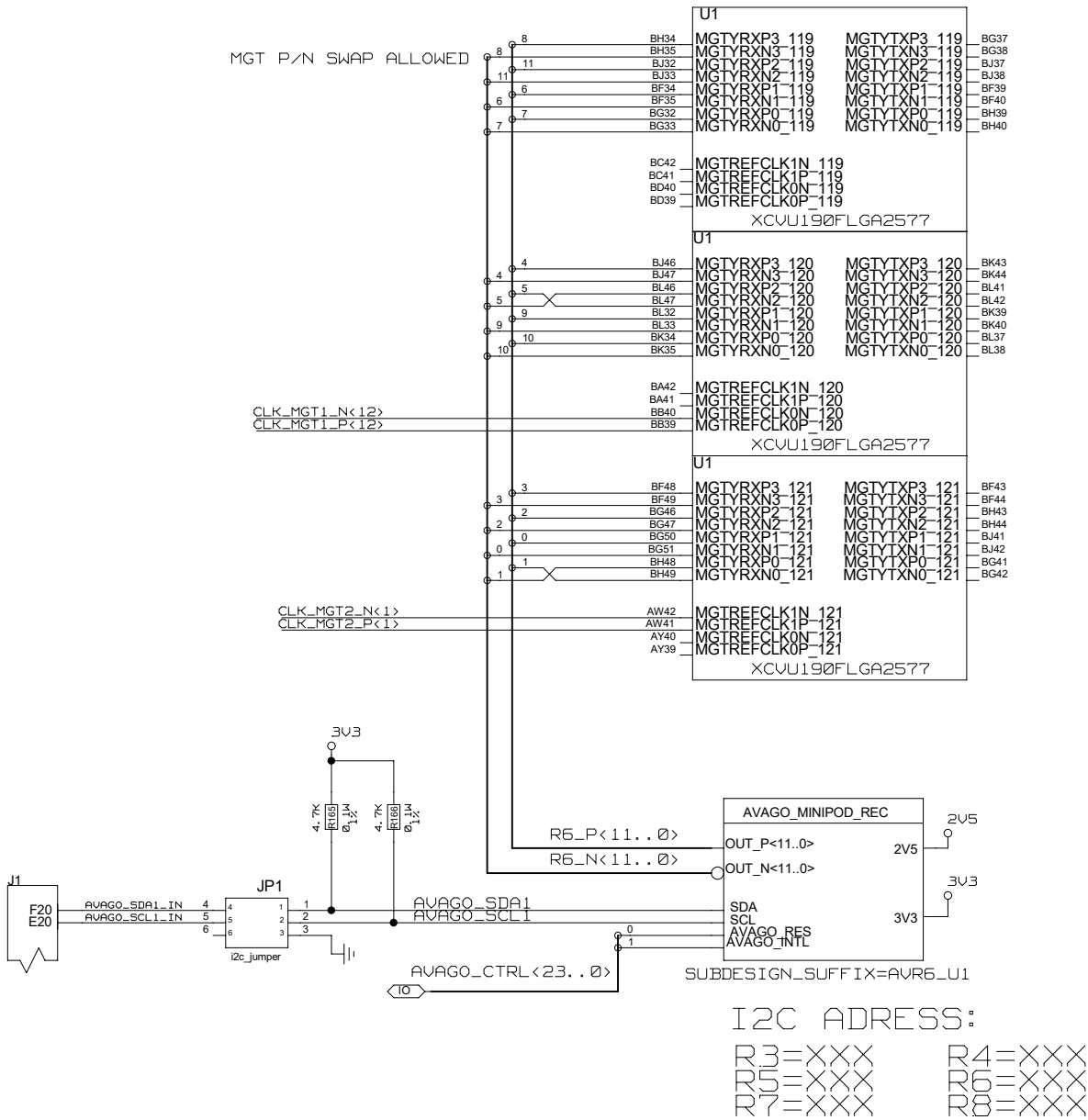
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

BANK
67
70

	NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	J. V.DE SOUZA				
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	25.08.2015		BLOCK TITLE	
UNIVERSITY OF MAINZ				SIZE C	DRAWING NO.
				SCALE	SHEET 4 OF 5



HIGH SPEED OPTICAL LINKS

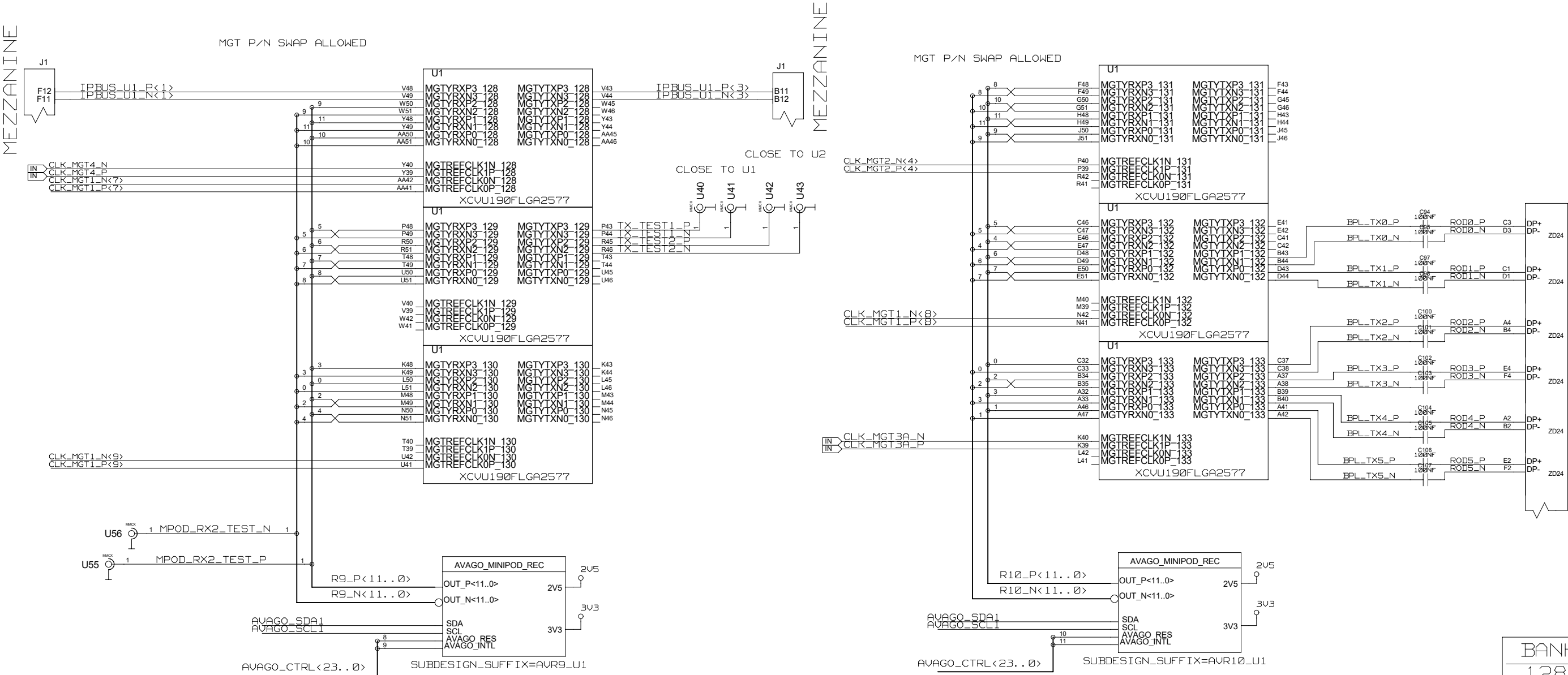


IN CLK_MGT1_P<12..1>
IN CLK_MGT1_N<12..1>
IN CLK_MGT2_P<6..1>
IN CLK_MGT2_N<6..1>

	NAME	DATE	SIGN	DRAWING TITLE TOPO_L2		
CHECKED	J. V.DE SOUZA					
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS	07. 08. 2015				
BLOCK TITLE U1_MGT_REAL_TIME				SIZE C REV. DRAWING NO.		
UNIVERSITY OF MAINZ						
SCALE				SHEET 1 OF 6		

HIGH SPEED OPTICAL LINKS
HIGH SPEED IPBUS

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



I2C ADDRESS:
R3=XXX R4=XXX
R5=XXX R6=XXX
R7=XXX R8=XXX

I2C ADDRESS:
R3=XXX R4=XXX
R5=XXX R6=XXX
R7=XXX R8=XXX

BANK
128
129
130
131
132
133
134
135
136
137
138
139
140

NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	J. V. DE SOUZA		TOPO_L2	
CHECKED	U. SCHAEFER			
CHECKED	S. RAVE			
DRAWN	BAUSS	07.08.2015		
BLOCK TITLE			DRAWING NO.	
U1_MGT_REAL_TIME				
UNIVERSITY OF MAINZ			SIZE	DRAWING NO.
			C	
			SCALE	SHEET 3 OF 6

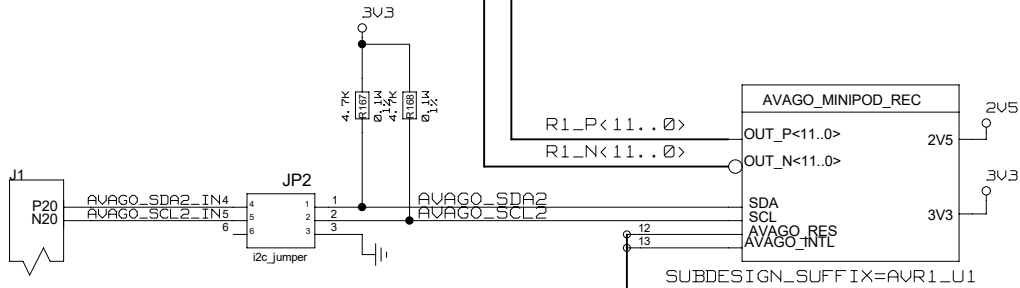
HIGH SPEED OPTICAL LINKS

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

MGT P/N SWAP ALLOWED

CLK_MGT1_P<1>
CLK_MGT1_N<1>

CLK_MGT2_P<5>
CLK_MGT2_N<5>



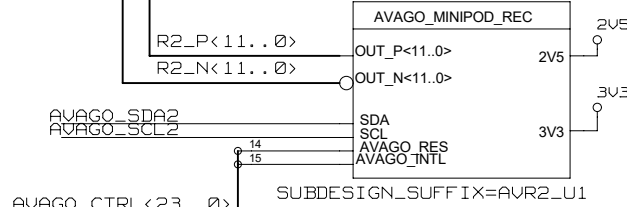
AVAGO_CTRL<23..0>

AVAGO_CTRL<23..0>
AVAGO_CTRL 0,2,4,6,8,10 = AVAGO_RES_XX
AVAGO_CTRL 1,3,5,7,9,11 = AVAGO_INTL_XX

I2C ADRESS:

R3=XXX R4=XXX
R5=XXX R6=XXX
R7=XXX R8=XXX

CLK_MGT1_P<2>
CLK_MGT1_N<2>



AVAGO_CTRL<23..0>

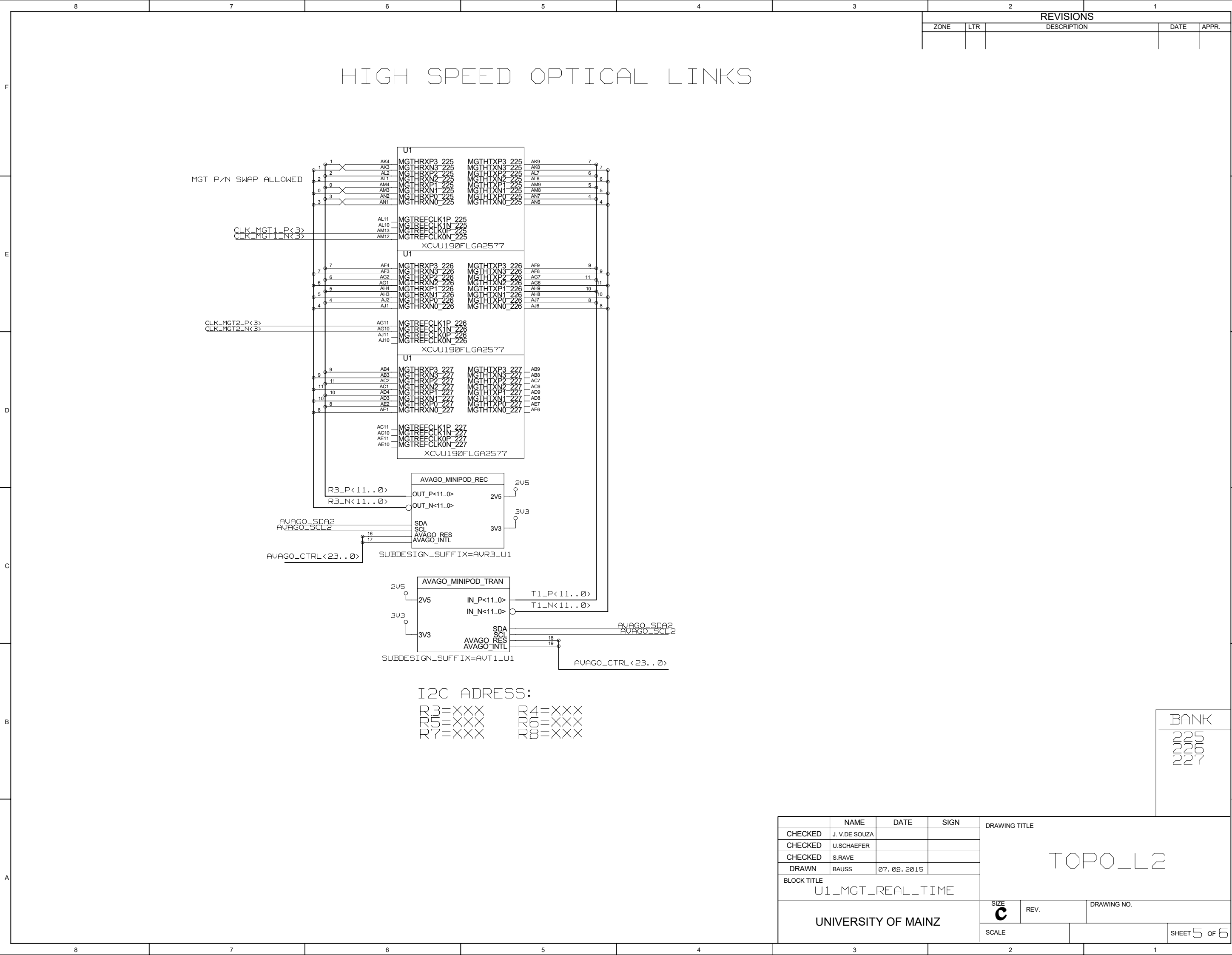
I2C ADDRESS:

R3=XXX R4=XXX
R5=XXX R6=XXX
R7=XXX R8=XXX

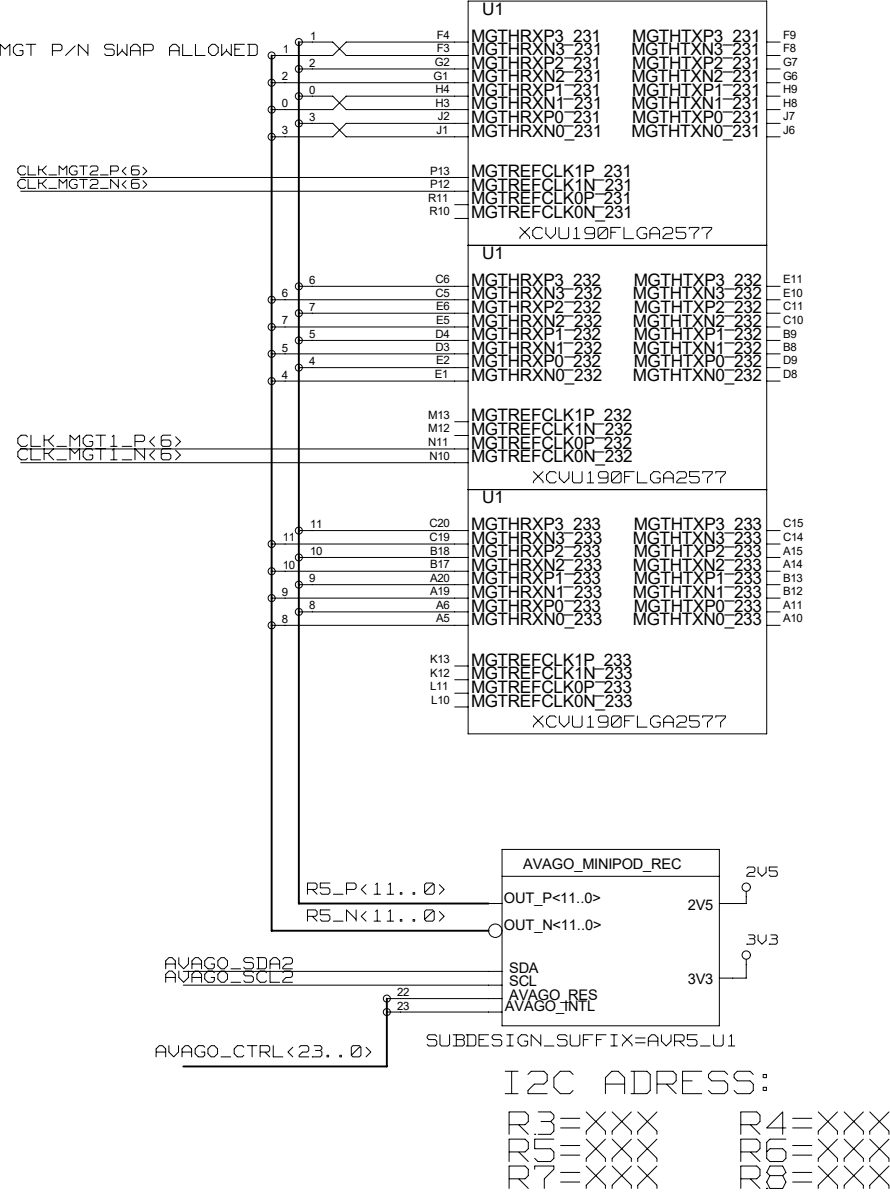
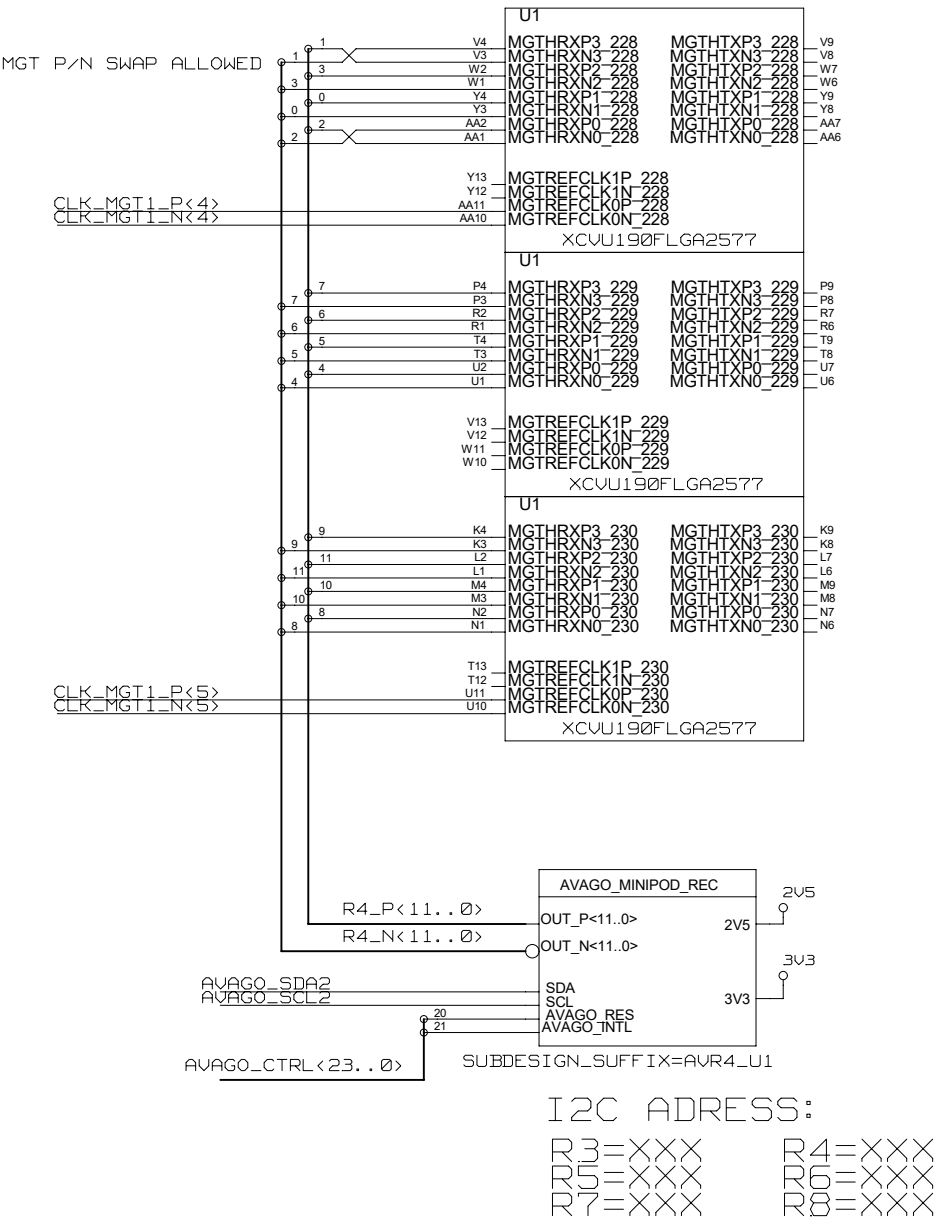
T1_N<11..0>
T1_P<11..0>

BANK
219
220
221
222
223
224

NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	J. V. DE SOUZA		TOPO_L2	
CHECKED	U. SCHAEFER			
CHECKED	S. RAVE			
DRAWN	BAUSS	07.08.2015		
BLOCK TITLE			DRAWING NO.	
U1_MGT_REAL_TIME			DRAWING NO.	
UNIVERSITY OF MAINZ			SIZE C	REV.
			SCALE	SHEET 4 OF 6



HIGH SPEED OPTICAL LINKS

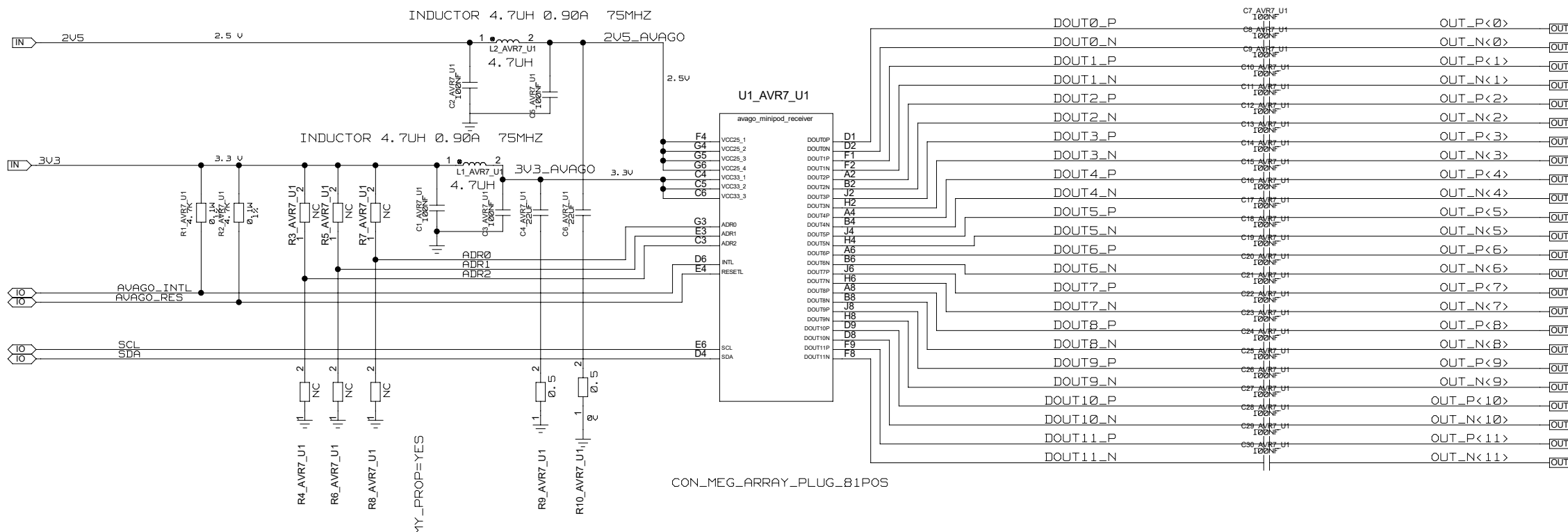


BANK

228
228
228
228
228
228
228
228

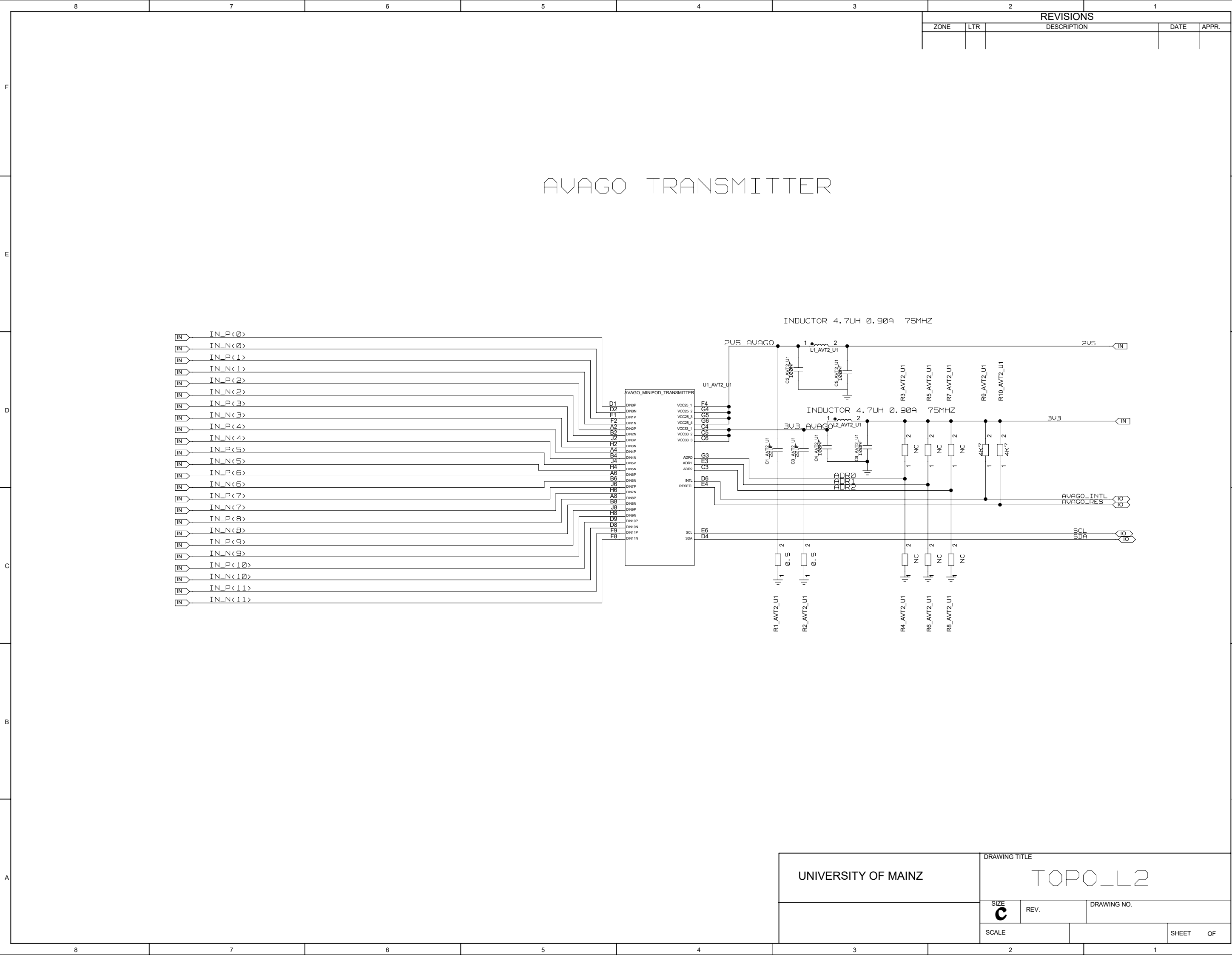
NAME	DATE	SIGN	DRAWING TITLE		
CHECKED	J. V.DE SOUZA		TOPO_L2		
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS	07.08.2015			
BLOCK TITLE			U1_MGT_REAL_TIME		
UNIVERSITY OF MAINZ			SIZE C	REV.	DRAWING NO.
			SCALE		SHEET 6 OF 6

AVAGO RECEIVER

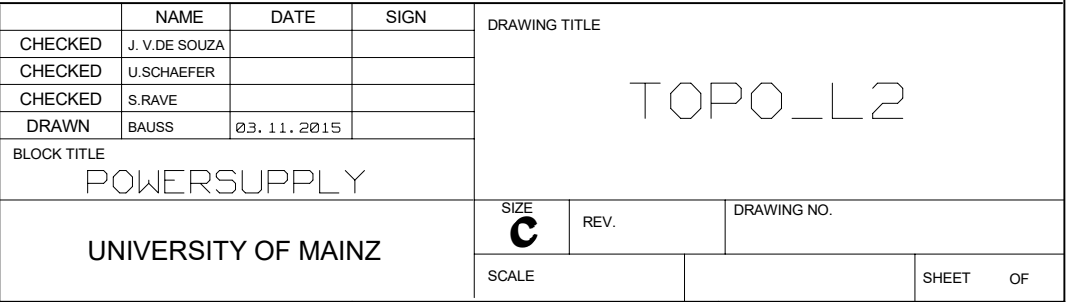


REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

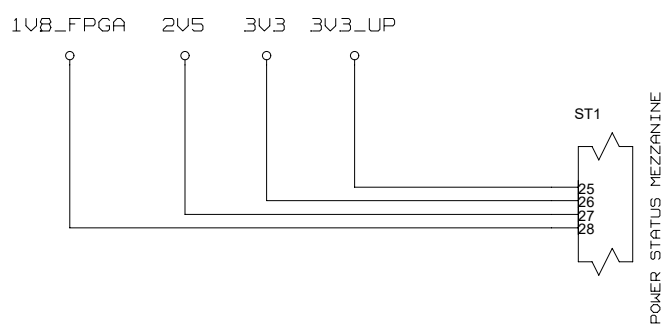
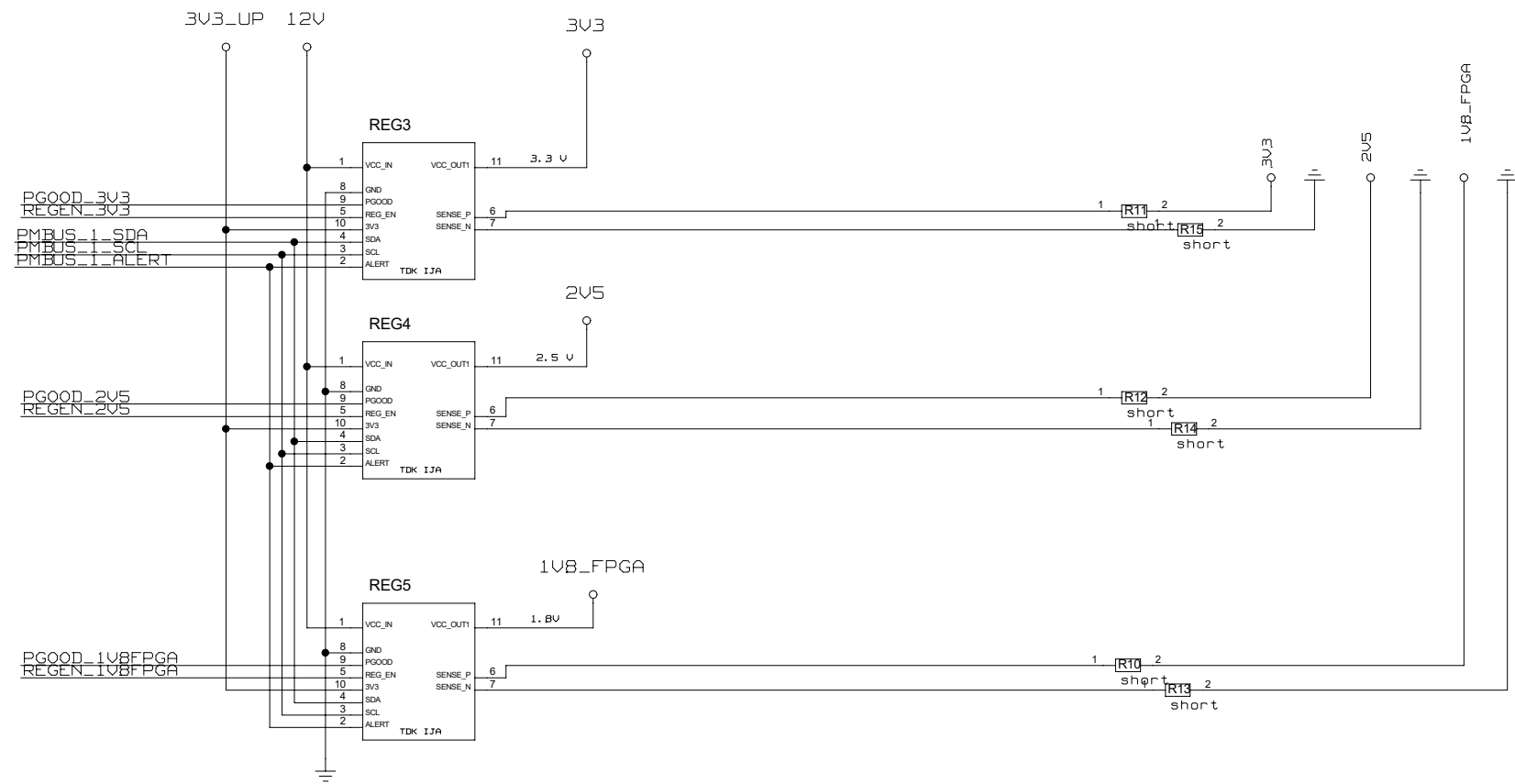
UNIVERSITY OF MAINZ		DRAWING TITLE		
		TOPO_L2		
		SIZE C	REV.	DRAWING NO.
SCALE		SHEET		OF



REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

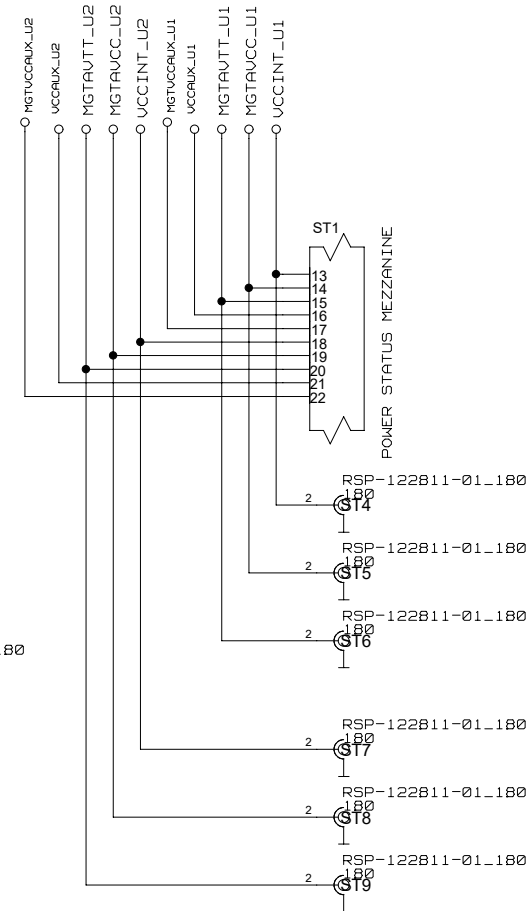
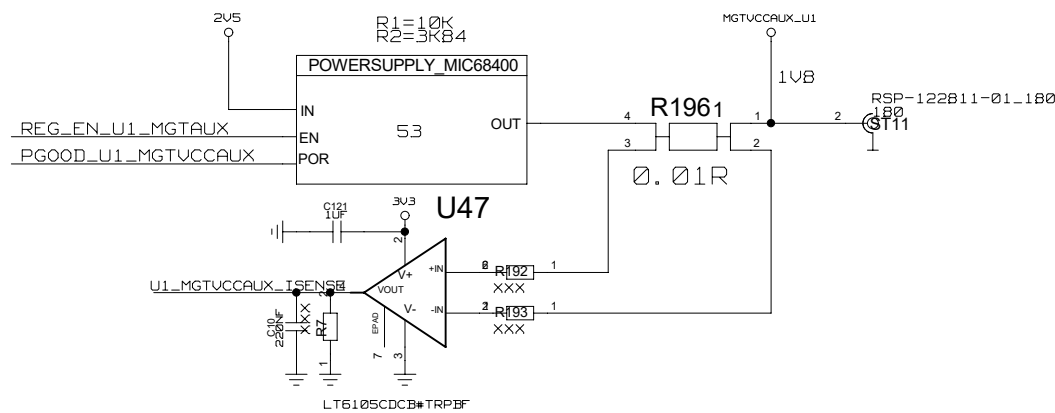
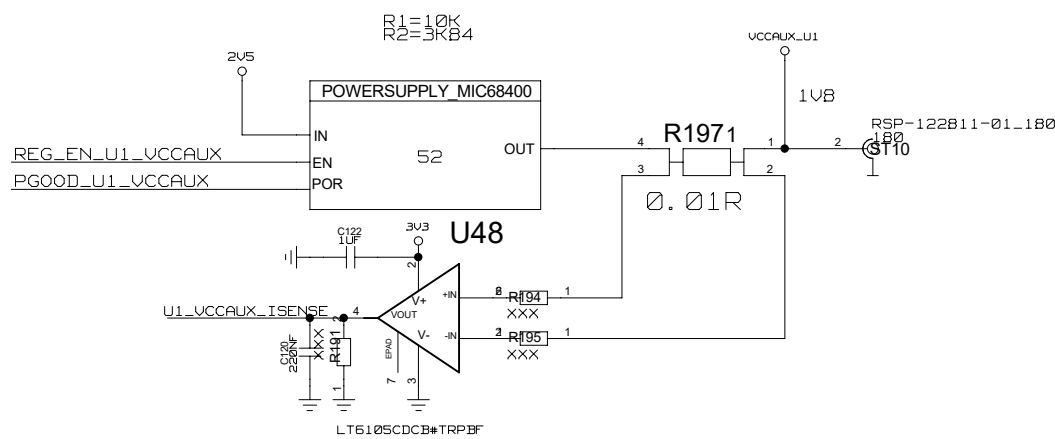
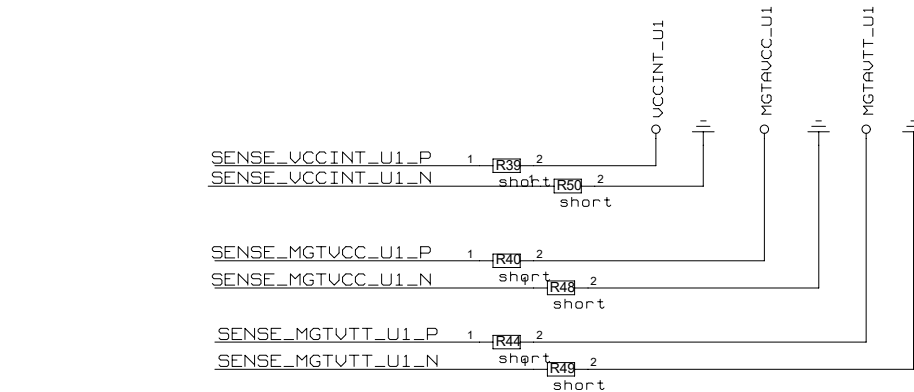


BOARDLEVEL 1V8, 2V5, 3V3



REVISIONS				1	
ZONE	LTR	DESCRIPTION	DATE	APPR.	

DRAWING TITLE				2	
TOPOLL2				1	
BLOCK TITLE				2	
POWERSUPPLY				1	
UNIVERSITY OF MAINZ				1	
SIZE				2	
C				1	
SCALE				1	
REV.				1	
DRAWING NO.				1	
SHEET				OF	

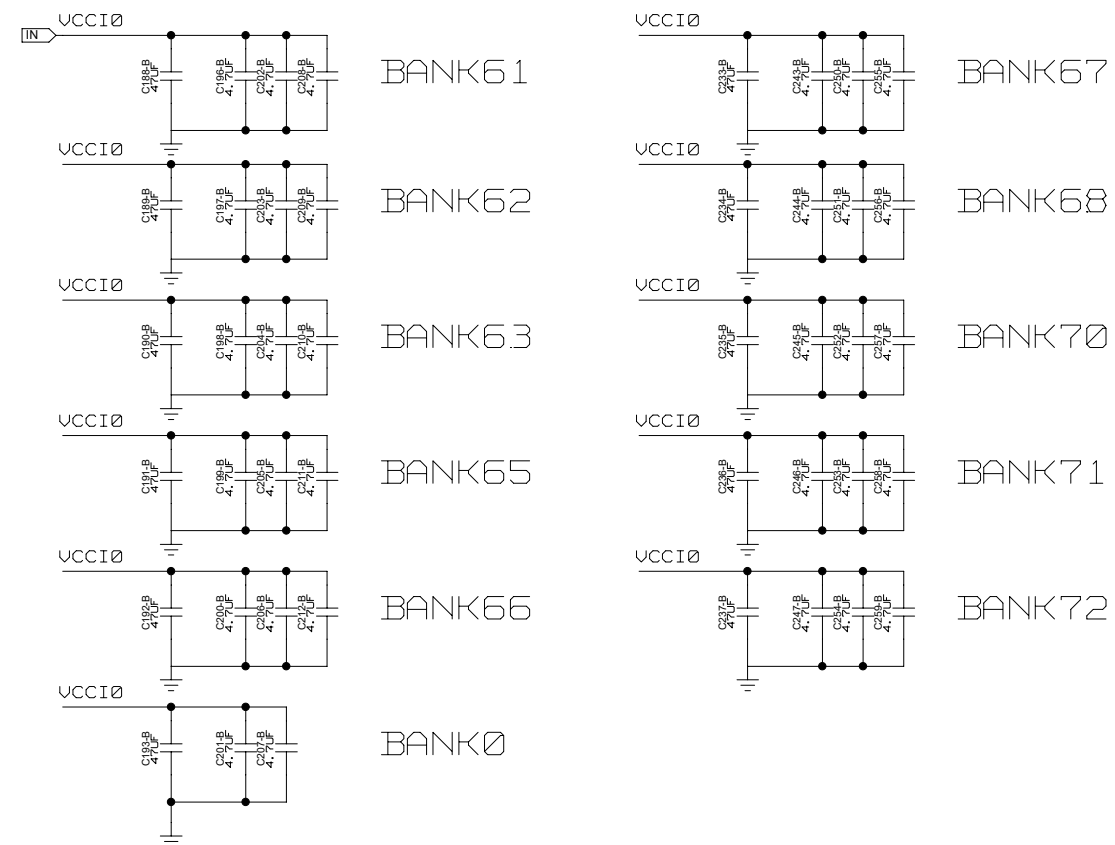


The schematic diagram illustrates the power and signal connections for the TDK_FPGA_PWR module. The module is represented by a box labeled 'TDK_FPGA_PWR' with pins A1 through A10 and B1 through B15. The connections are as follows:

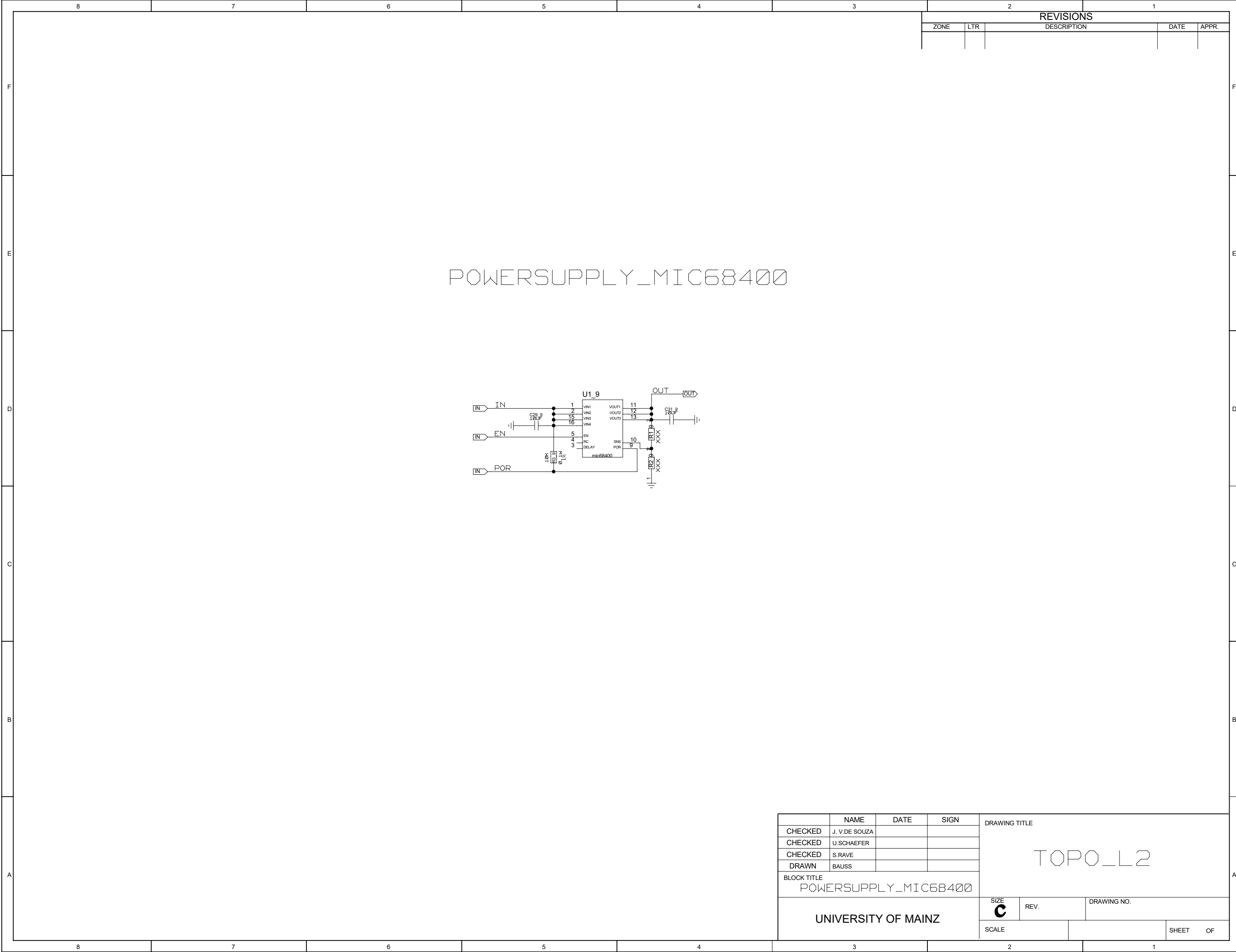
- Power Connections:**
 - 12V:** Connected to pins A1 (VCON1), A2 (VCON2), A3 (GN1), A4 (GN2), A5 (+12V), A6 (GN3), A7 (MGTVTT), A8 (GN4), A9 (GN5), and A10 (MGTVCC).
 - 3V3:** Connected to pins B1 (REG_EN_U1_VCCINT), B4 (PGOOD_U1_VCCINT), B5 (+3V3), B16 (PMBUS_1_SDA), B17 (SENSE_MGTVTT_U1_P), B18 (SENSE_MGTVTT_U1_N), B19 (SENSE_MGTVCC_U1_P), B20 (SENSE_MGTVCC_U1_N), B21 (REG_EN_U1_MGTVTT), B22 (PGOOD_U1_MGTVCC), B23 (SENSE_MGTVCC_U1_P), B24 (SENSE_MGTVCC_U1_N), B25 (PMBUS_1_SCL), B26 (PMBUS_1_ALERT), B27 (SALT2), B28 (SALT3), and B29 (SALT3).
- Signal Connections:**
 - U19:** A multi-pin connector with pins A1 through A10 and B1 through B15. It is connected to the module pins A1 through A10 and B1 through B15.
 - REG_EN_U1_VCCINT:** Connected to pin B1.
 - PGOOD_U1_VCCINT:** Connected to pin B4.
 - SENSE_VCON1_U1_P:** Connected to pin B3.
 - SENSE_VCON1_U1_N:** Connected to pin B2.
 - REG_EN_U1_MGTVCC:** Connected to pin B7.
 - PGOOD_U1_MGTVCC:** Connected to pin B8.
 - SENSE_MGTVCC_U1_P:** Connected to pin B9.
 - SENSE_MGTVCC_U1_N:** Connected to pin B10.
 - REG_EN_U1_MGTVTT:** Connected to pin B13.
 - PGOOD_U1_MGTVTT:** Connected to pin B21.
 - SENSE_MGTVTT_U1_P:** Connected to pin B17.
 - SENSE_MGTVTT_U1_N:** Connected to pin B18.
 - PMBUS_1_SDA:** Connected to pin B16.
 - PMBUS_1_SCL:** Connected to pin B25.
 - PMBUS_1_ALERT:** Connected to pin B26.
 - SALT2:** Connected to pin B27.
 - SALT3:** Connected to pin B28.
 - SALT3:** Connected to pin B29.

	NAME	DATE	SIGN	DRAWING TITLE TOPO_L2		
CHECKED	J. V.DE SOUZA					
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS					
BLOCK TITLE POWERSUPPLY						
UNIVERSITY OF MAINZ				SIZE C	REV.	DRAWING NO.
				SCALE		

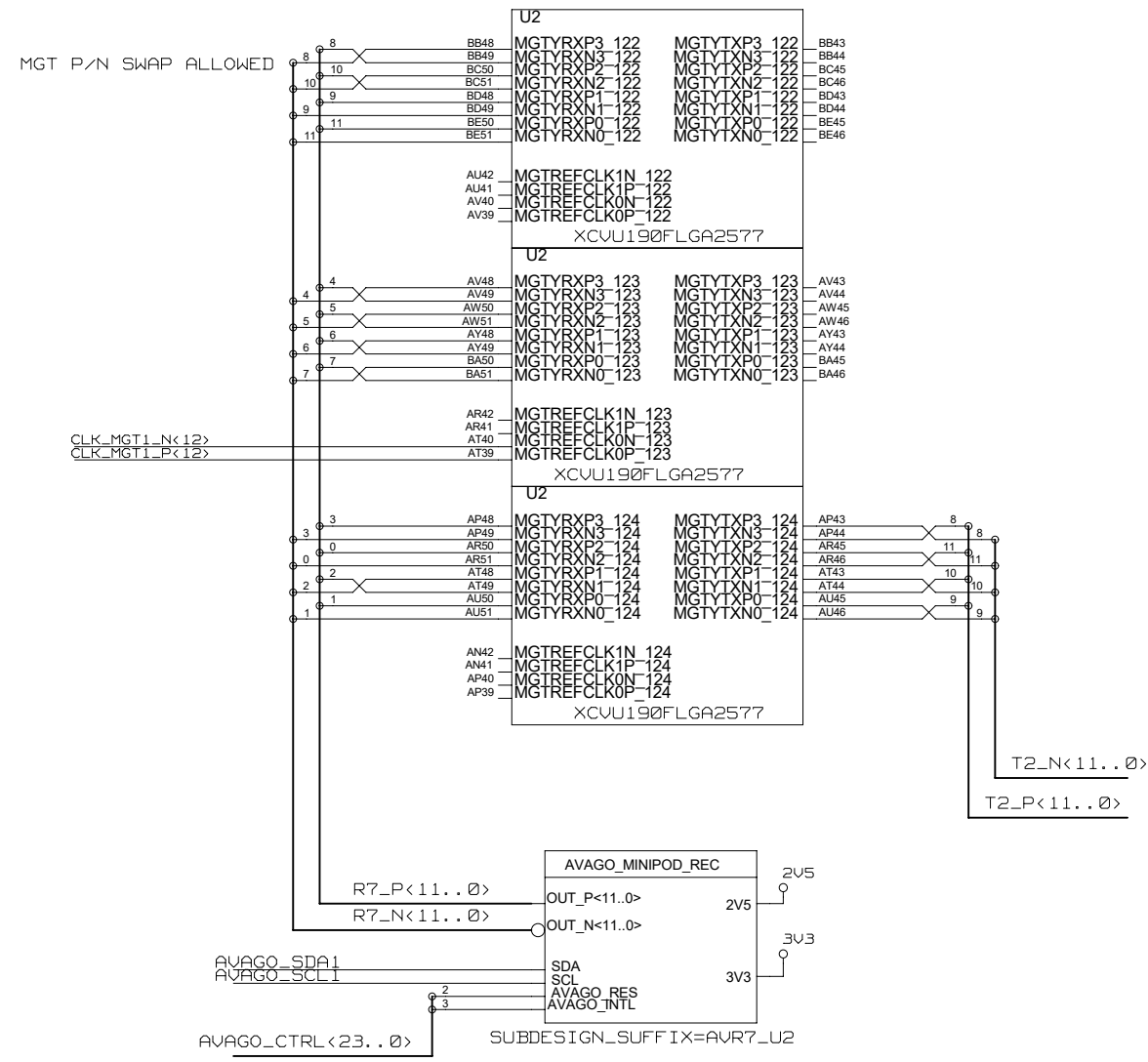
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

[illegible]

	NAME	DATE	SIGN	DRAWING TITLE TOPO_L2		
CHECKED	J. V.DE SOUZA					
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS					
BLOCK TITLE FPGA_DECOUPLING						
UNIVERSITY OF MAINZ				SIZE C	REV.	DRAWING NO.
				SCALE		



	NAME	DATE	SIGN	DRAWING TITLE TOPOLL2			
CHECKED	J. V.DE SOUZA						
CHECKED	U.SCHAEFER						
CHECKED	S.RAVE						
DRAWN	BAUSS						
BLOCK TITLE POWERSUPPLY_MIC68400				SIZE C	REV.	DRAWING NO.	
UNIVERSITY OF MAINZ				SCALE			SHEET OF



```
I2C ADDRESS:
R3=XXX      R4=XXX
R5=XXX      R6=XXX
R7=XXX      R8=XXX
```

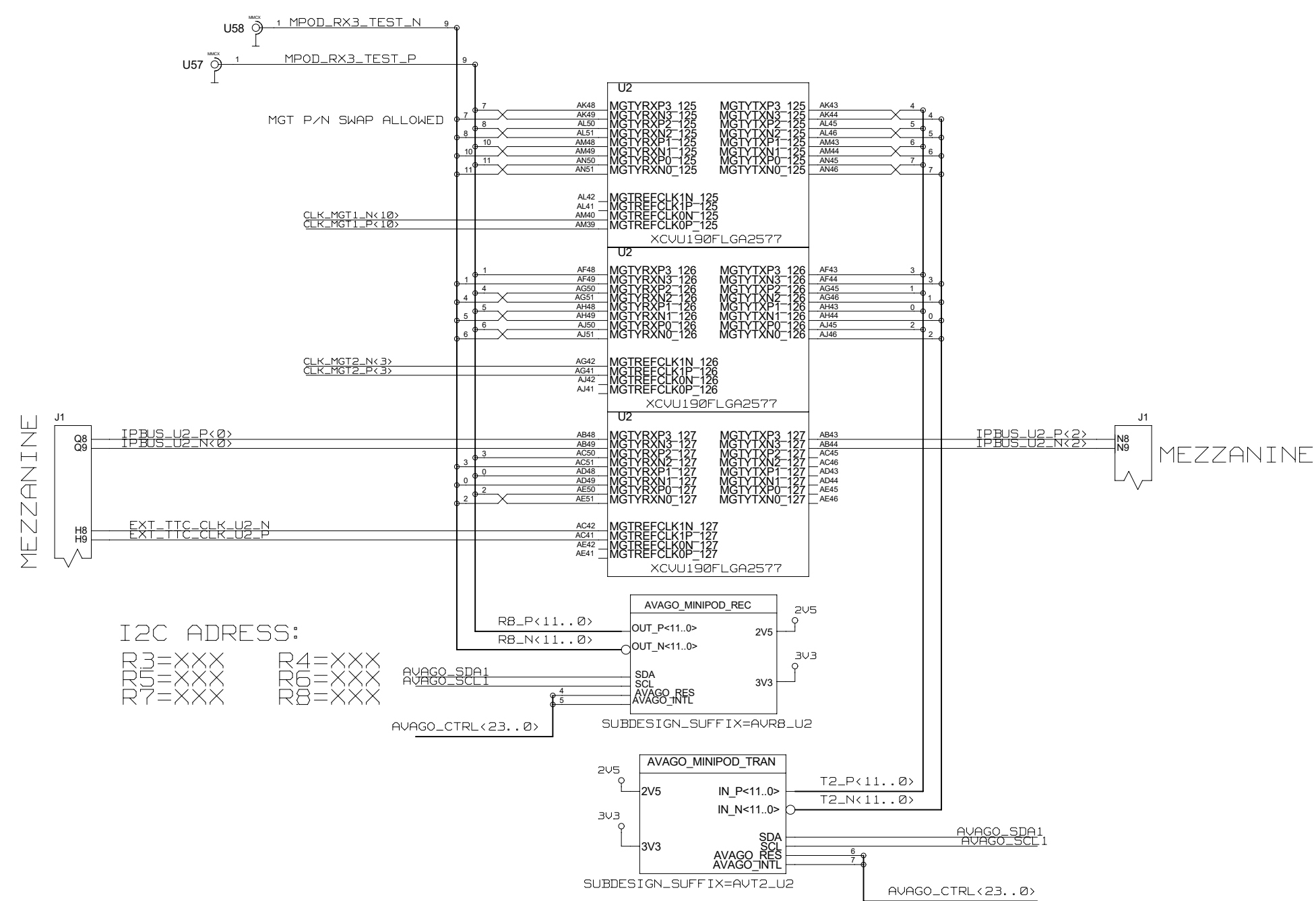
BANK		
1	1	9
1	2	0
1	2	1
1	2	2
1	2	3
1	2	4

	NAME	DATE	SIGN	DRAWING TITLE TOPO_L2		
CHECKED	J. V.DE SOUZA					
CHECKED	U.SCHAEFER					
CHECKED	S.RAVE					
DRAWN	BAUSS	07. 08. 2015				
BLOCK TITLE U2_MGT_REAL_TIME						
UNIVERSITY OF MAINZ				SIZE C	REV.	DRAWING NO.
				SCALE		

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

HIGH SPEED OPTICAL LINKS

HIGH SPEED IPBUS



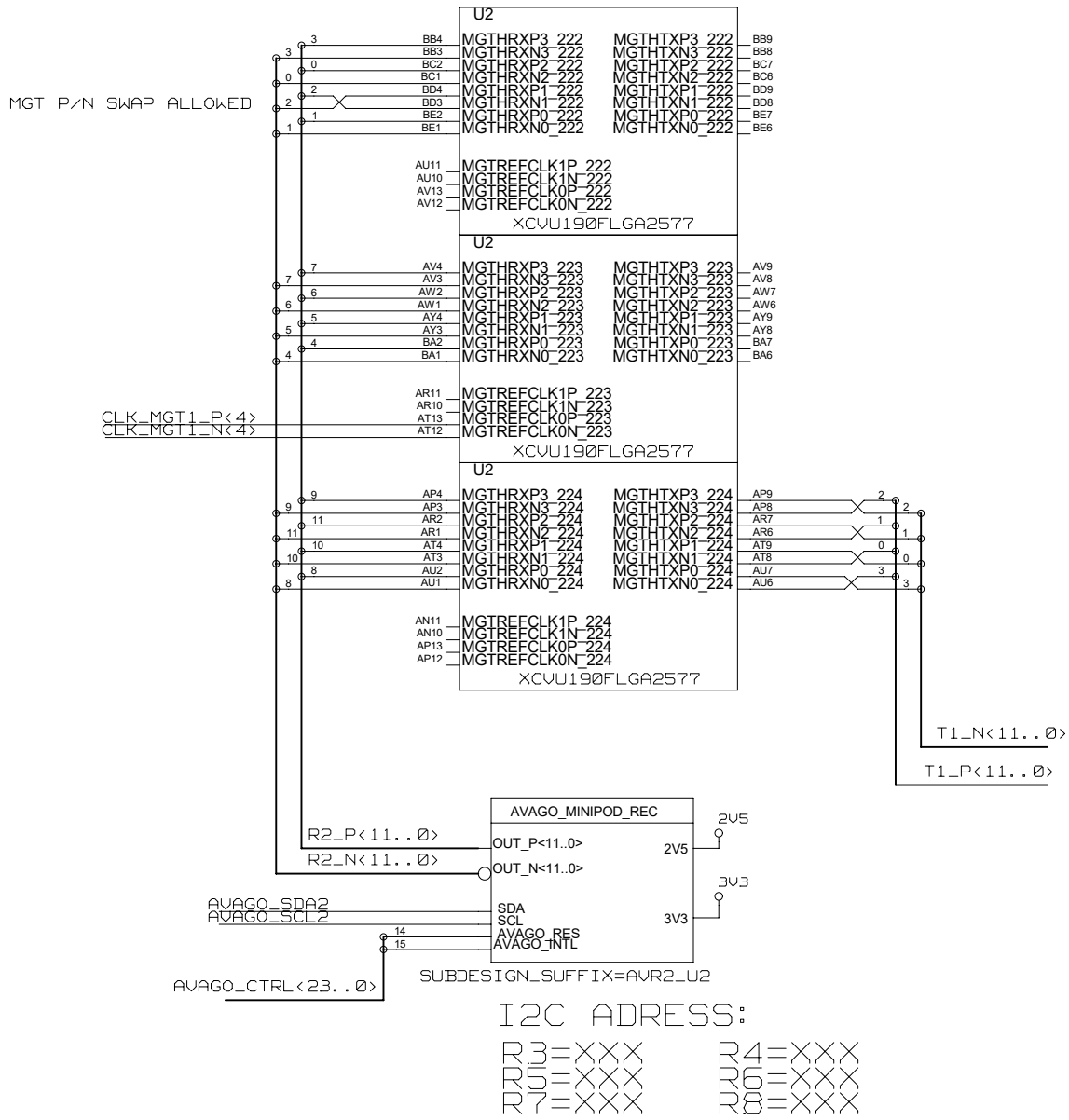
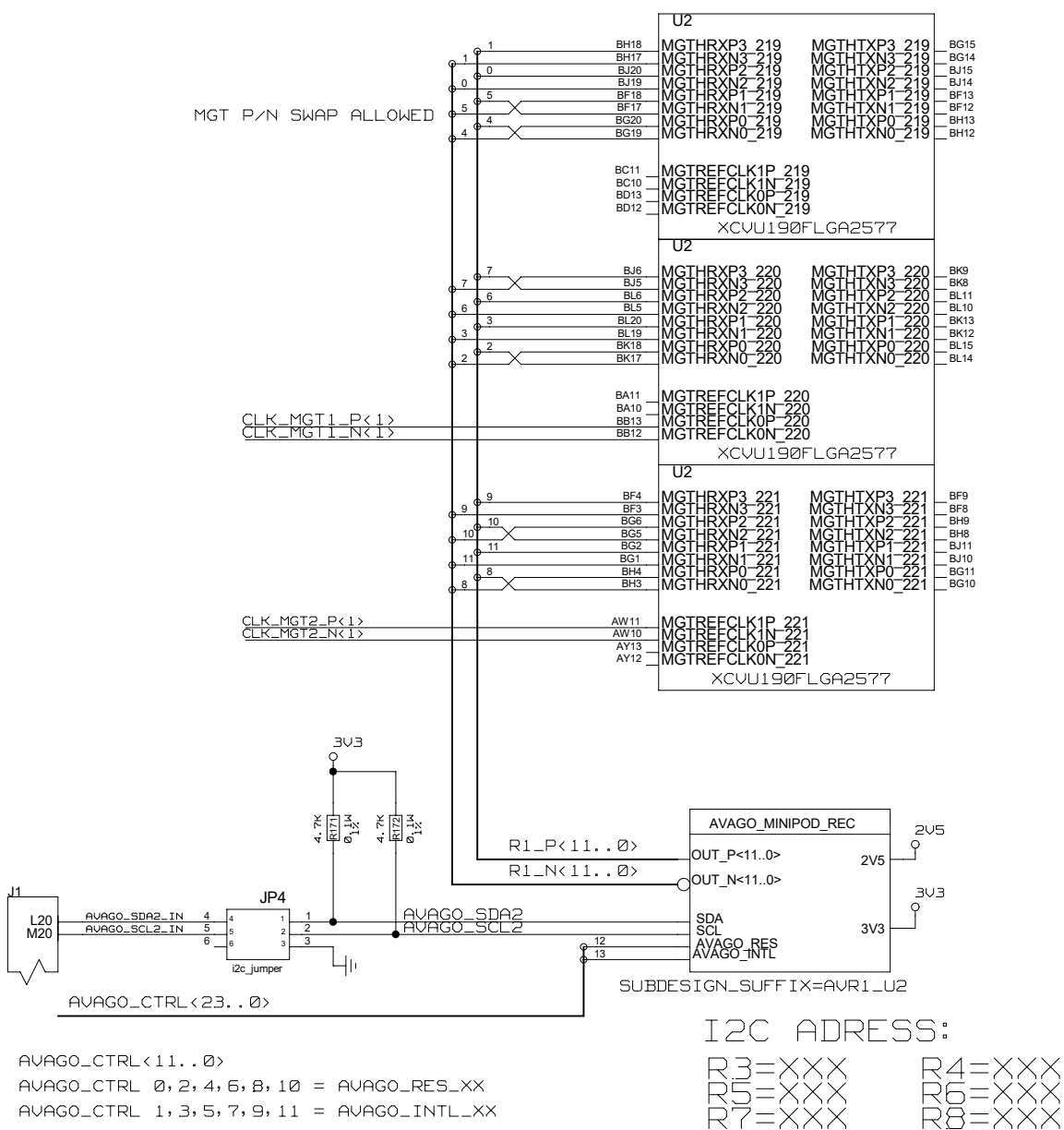
I2C ADDRESS:
R3=XXXX R4=XXXX
R5=XXXX R6=XXXX
R7=XXXX R8=XXXX

I2C ADDRESS:
R3=XXX R4=XXX
R5=XXX R6=XXX
R7=XXX R8=XXX

BANK
125
126
127

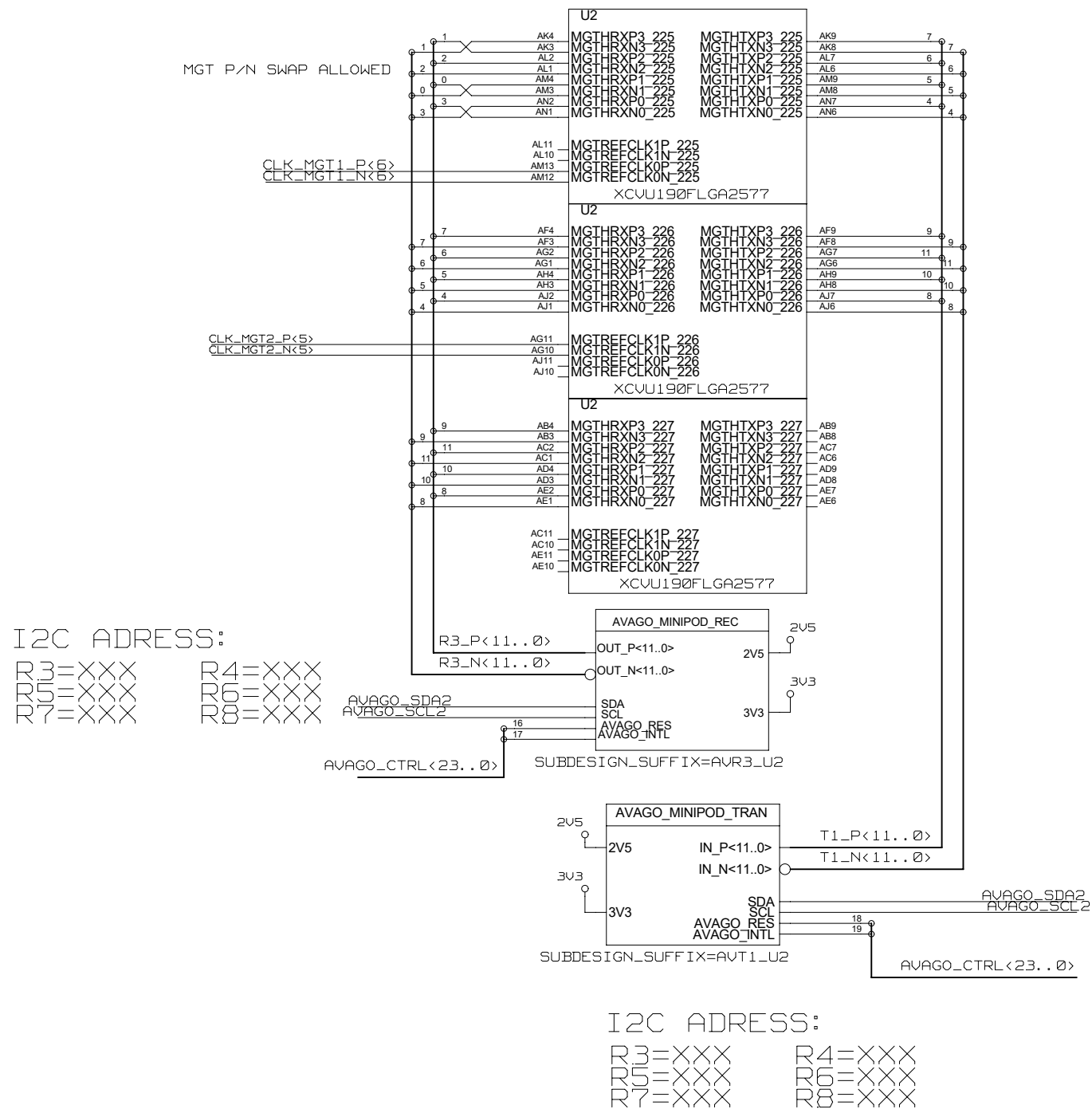
NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	J. V. DE SOUZA		TOPO_L2	
CHECKED	U. SCHAEFER			
CHECKED	S. RAVE			
DRAWN	BAUSS	07.08.2015		
BLOCK TITLE			U2_MGT_REAL_TIME	
UNIVERSITY OF MAINZ			SIZE C	DRAWING NO.
SCALE			REV.	SHEET 2 OF 6

HIGH SPEED OPTICAL LINKS



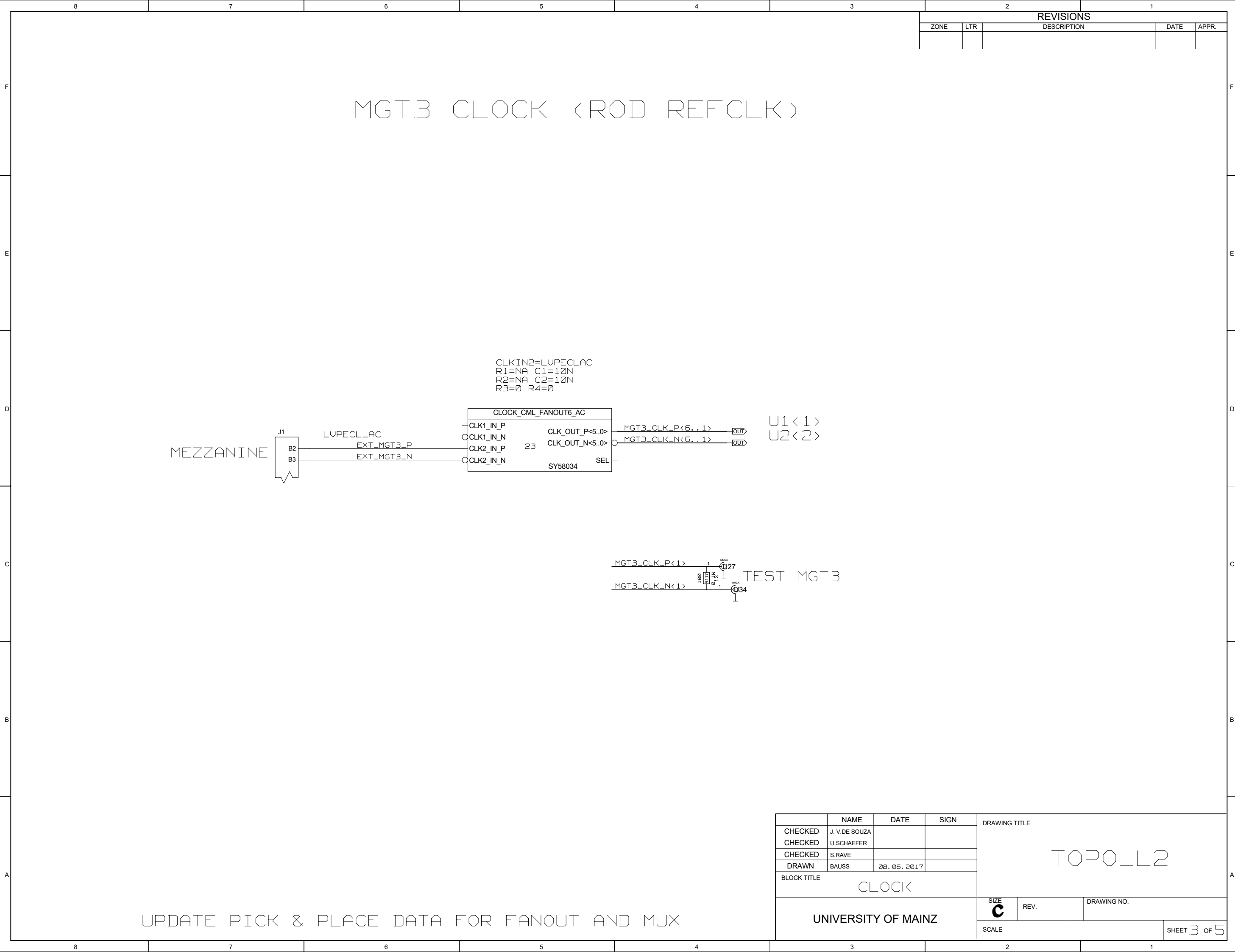
	NAME	DATE	SIGN	DRAWING TITLE TOPO_L2			
CHECKED	J. V.DE SOUZA						
CHECKED	U.SCHAEFER						
CHECKED	S.RAVE						
DRAWN	BAUSS	07.08.2015					
BLOCK TITLE U2_MGT_REAL_TIME							
UNIVERSITY OF MAINZ				SIZE C	REV.	DRAWING NO.	
				SCALE			
				SHEET 4 OF 6			

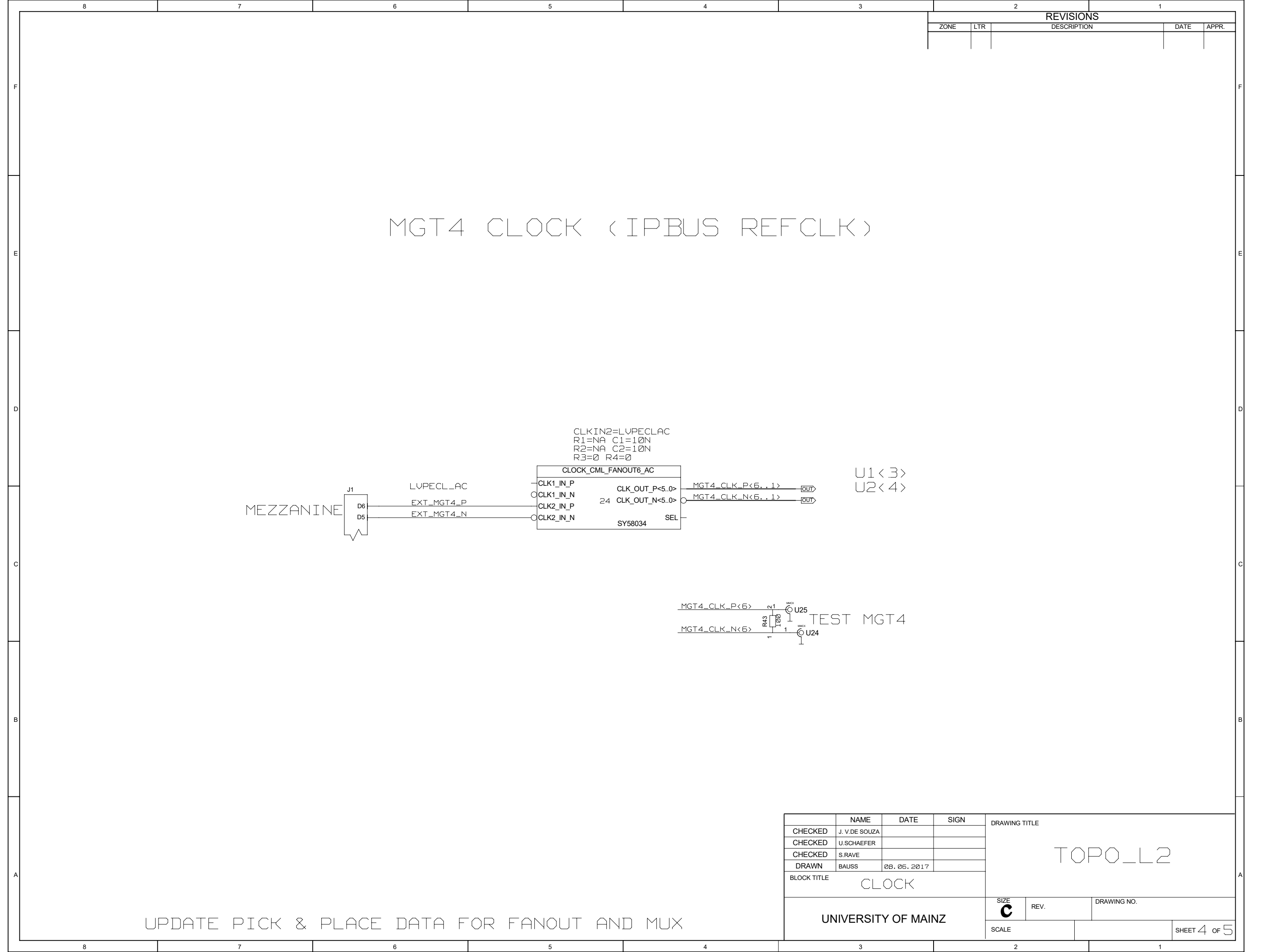
HIGH SPEED OPTICAL LINKS



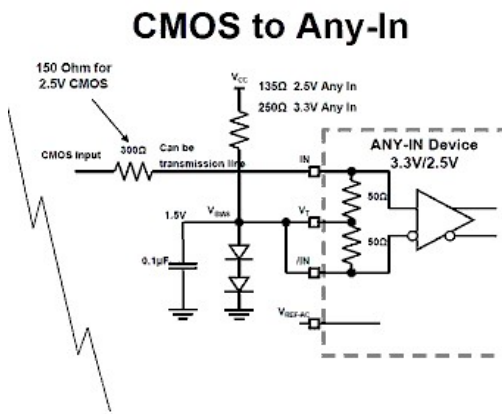
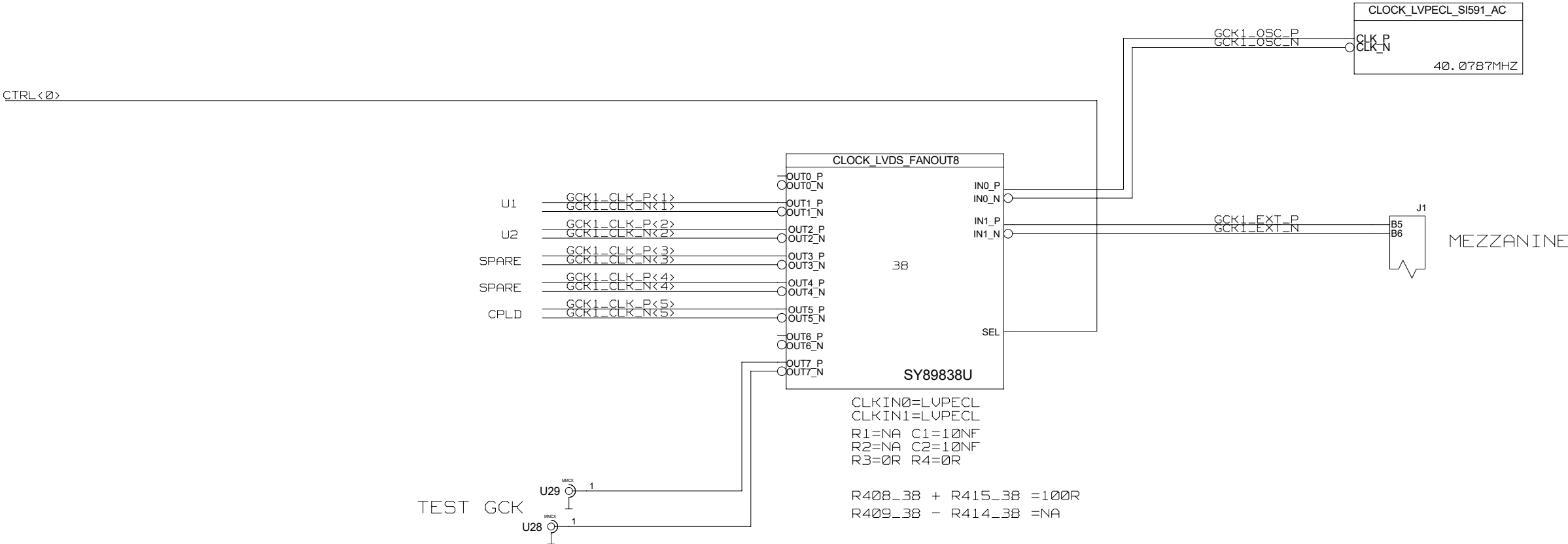
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.

NAME	DATE	SIGN	DRAWING TITLE	
CHECKED J. V. DE SOUZA			TOPO_LL2	
CHECKED U. SCHAEFER				
CHECKED S. RAVE				
DRAWN BAUSS	07.08.2015			
BLOCK TITLE			DRAWING NO.	
U2_MGT_REAL_TIME				
UNIVERSITY OF MAINZ			SIZE C	REV.
			SCALE	DRAWING NO.
				SHEET 5 OF 6





GLOBAL CLOCK1

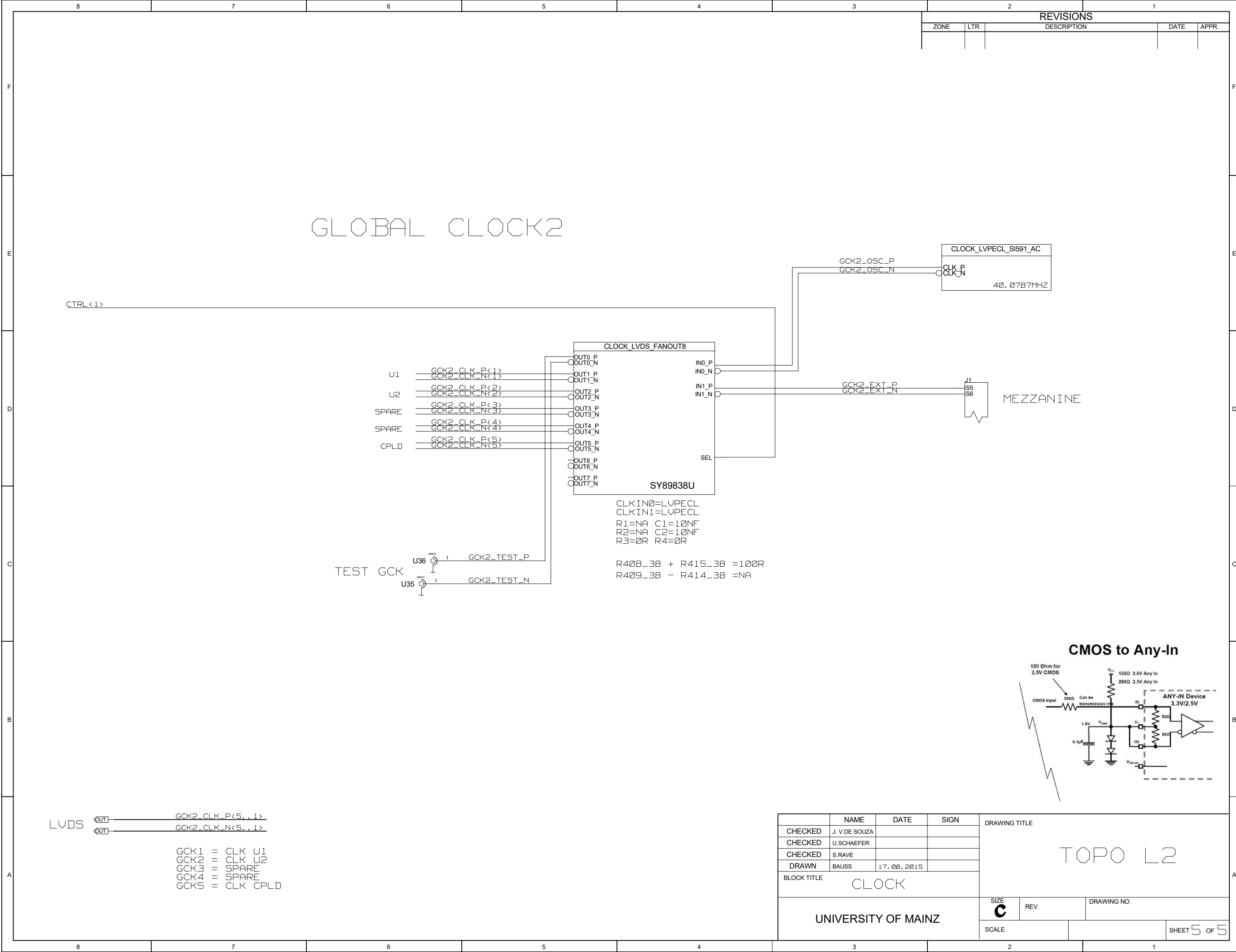


LVDS

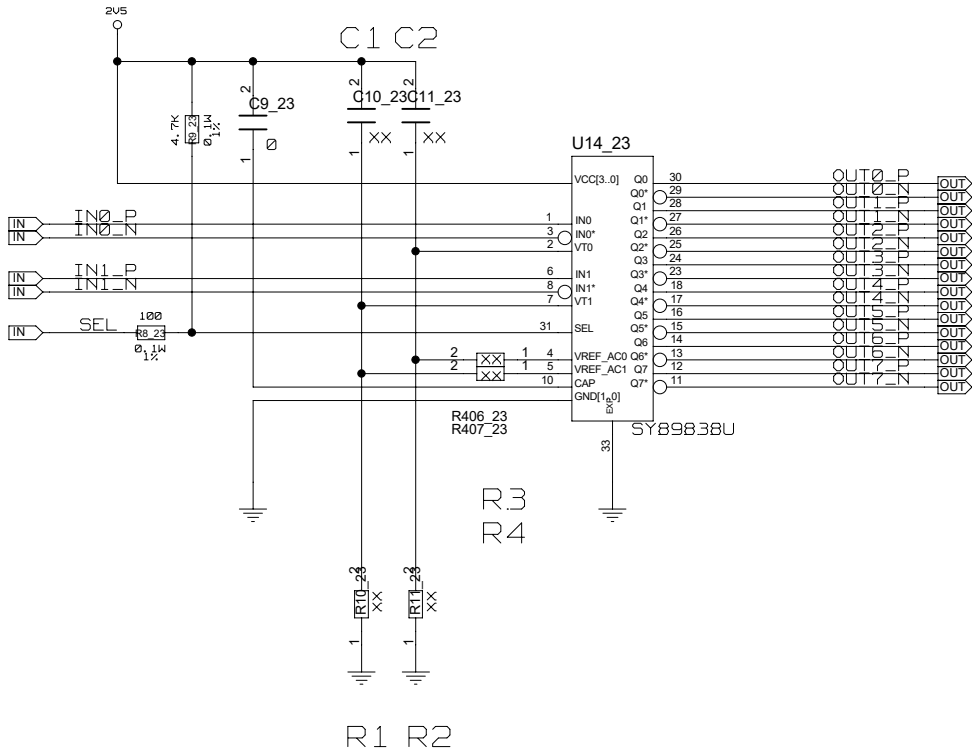
OUT1 GCK1_CLK_P<5..1>
OUT2 GCK1_CLK_N<5..1>

GCK1 = CLK U1
GCK2 = CLK U2
GCK3 = SPARE
GCK4 = SPARE
GCK5 = CLK CPLD

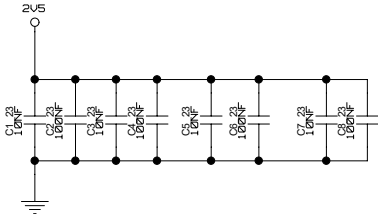
NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	J. V. DE SOUZA		TOPO L2	
CHECKED	U. SCHAEFER			
CHECKED	S. RAVE			
DRAWN	BAUSS	17. 08. 2015		
BLOCK TITLE			CLOCK	
UNIVERSITY OF MAINZ			SIZE	REV.
			SCALE	DRAWING NO.
			SHEET 5 OF 5	



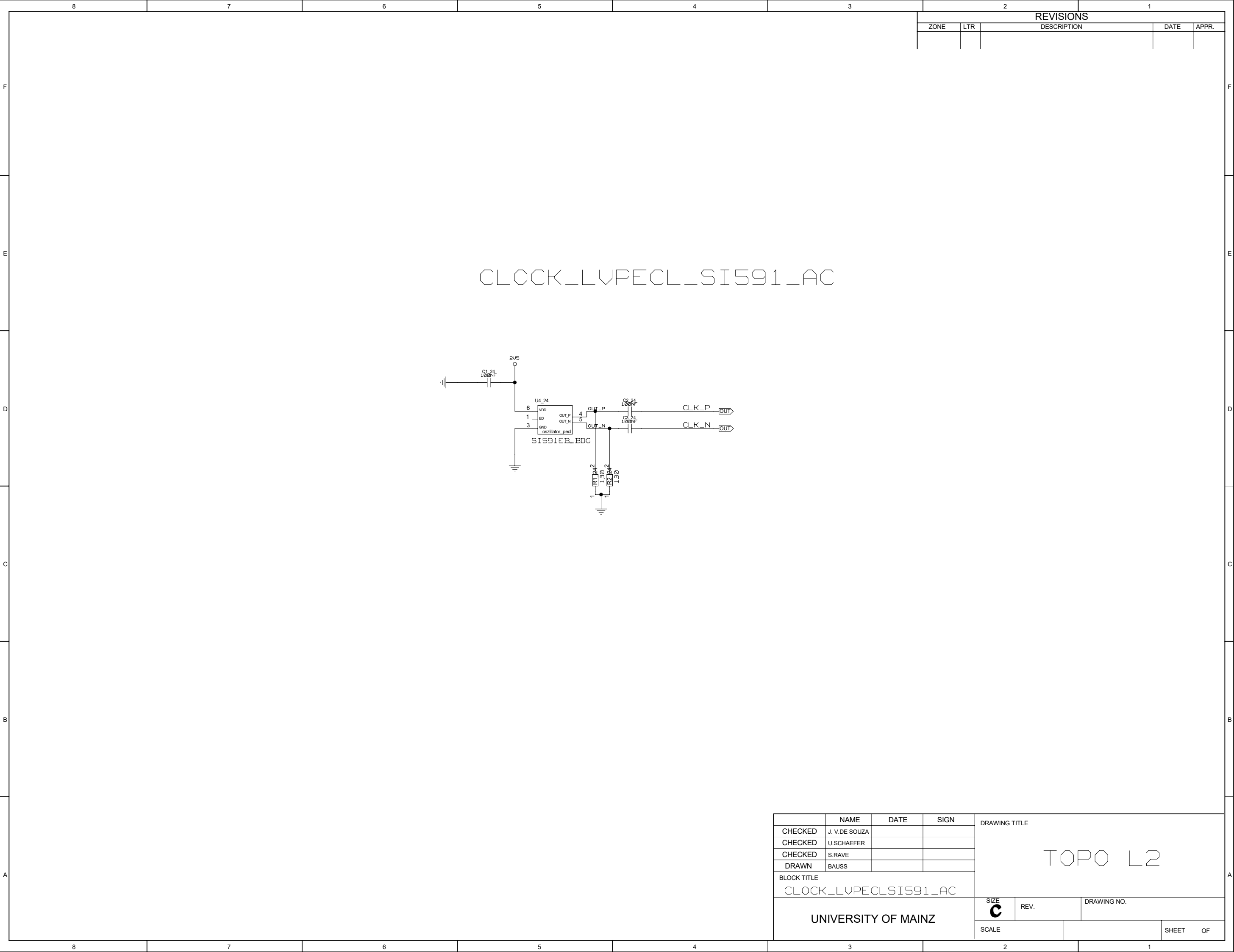
CLOCK_LVDS_FANOUT8



OUT0_P	NA
OUT0_N	12_23
OUT1_P	NA
OUT1_N	11_23
OUT2_P	NA
OUT2_N	12_23
OUT3_P	NA
OUT3_N	13_23
OUT4_P	NA
OUT4_N	14_23
OUT5_P	NA
OUT5_N	15_23
OUT6_P	NA
OUT6_N	16_23
OUT7_P	NA
OUT7_N	17_23

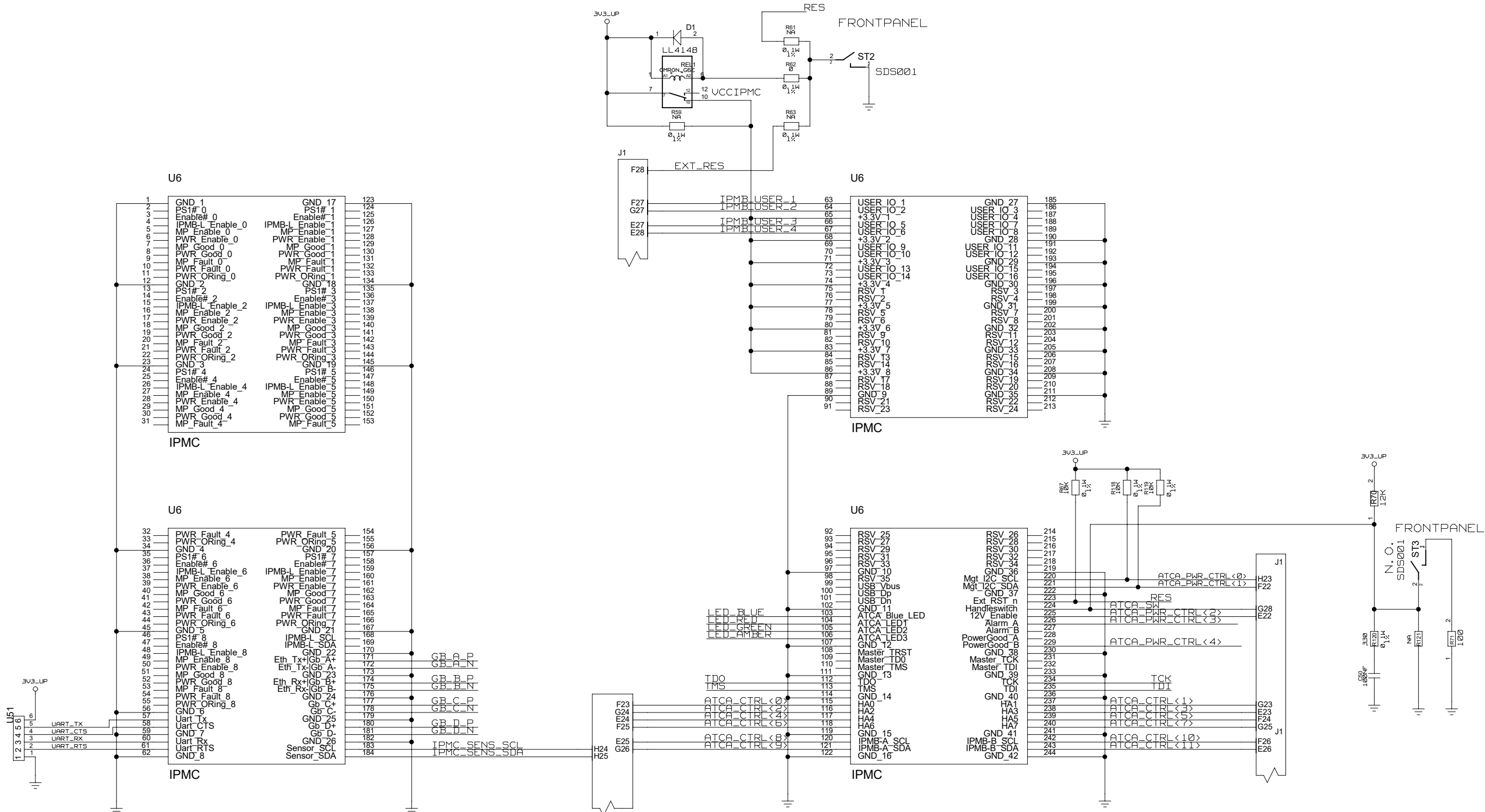


	NAME	DATE	SIGN	DRAWING TITLE			
CHECKED	J. V.DE SOUZA			TOPO L2			
CHECKED	U.SCHAEFER						
CHECKED	S.RAVE						
DRAWN	BAUSS						
BLOCK TITLE				DRAWING NO.			
CLOCK_LVDS_FANOUT8				SIZE	REV.	DRAWING NO.	
UNIVERSITY OF MAINZ				C			
				SCALE			SHEET OF



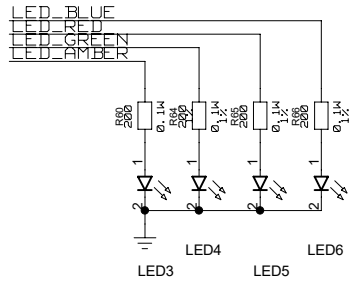
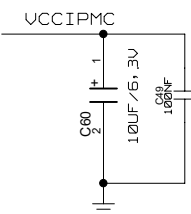
IPMC CONNECTOR MOLEX_87782-3003

REVISIONS			
ZONE	LTR	DESCRIPTION	DATE

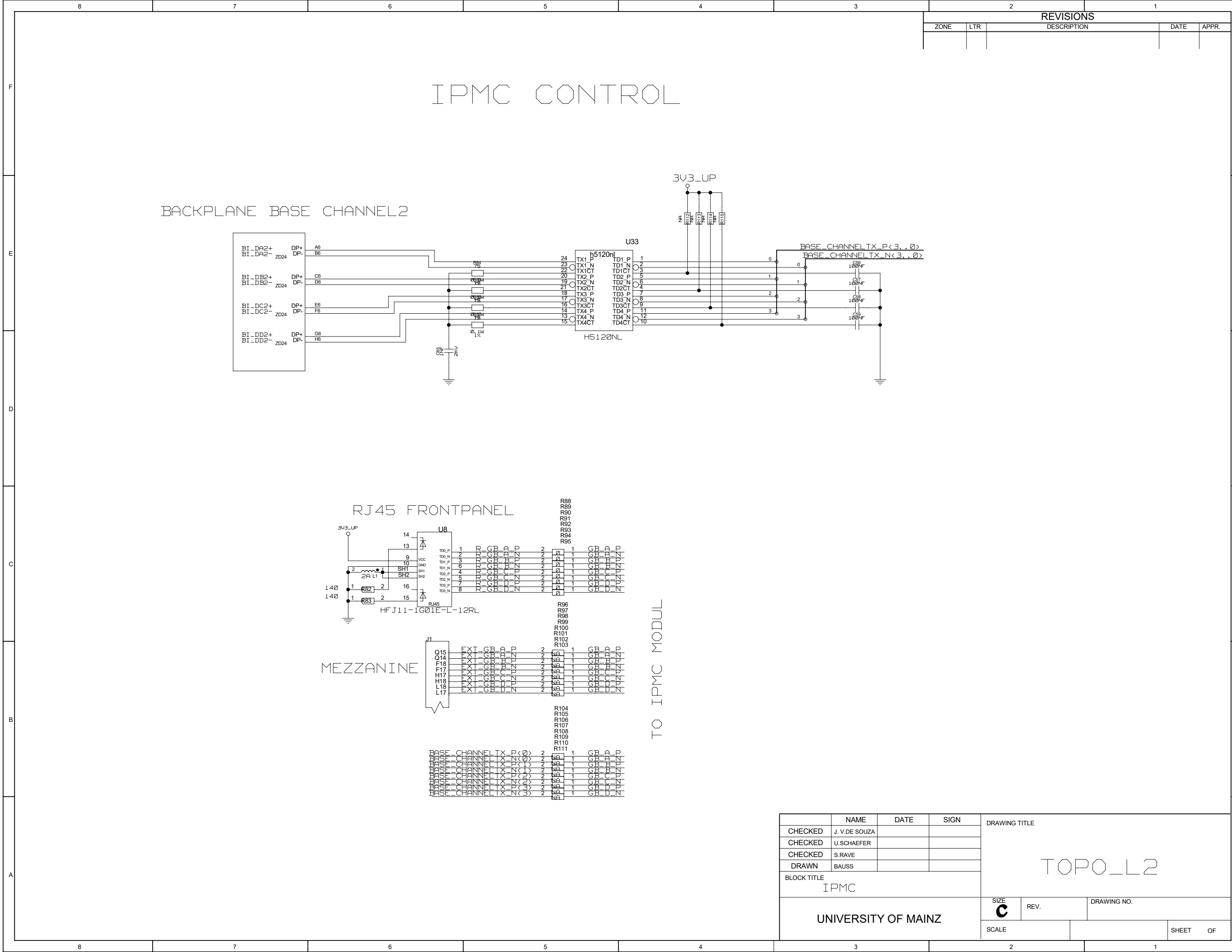


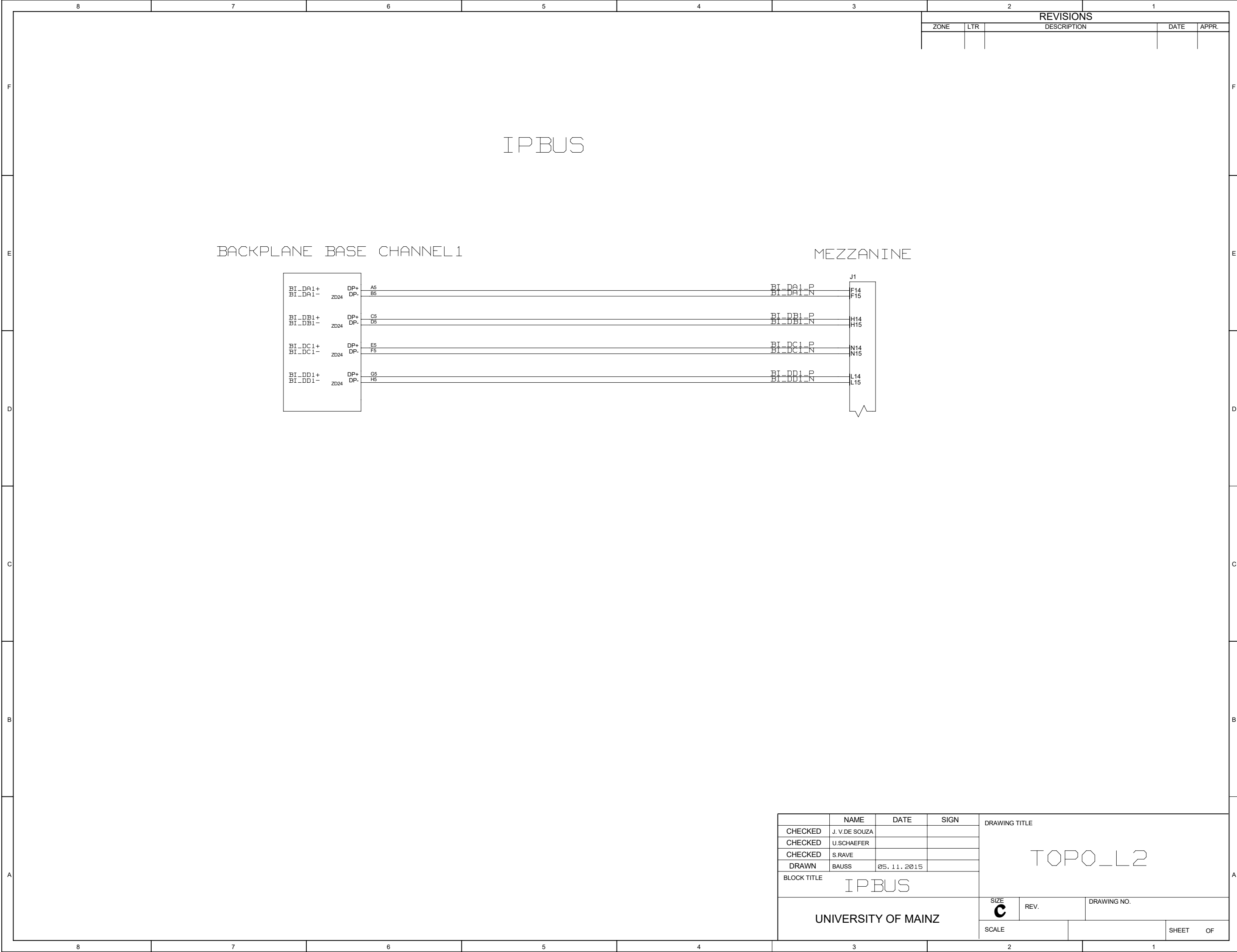
ATCA_HA<0..7> BACKPLANE + MEZZANINE
 ATCA_A/B_SCL/SDA BACKPLANE + MEZZANINE

ATCA_CTRL<11..0>
 ATCA_PWR_CTRL<4..0>

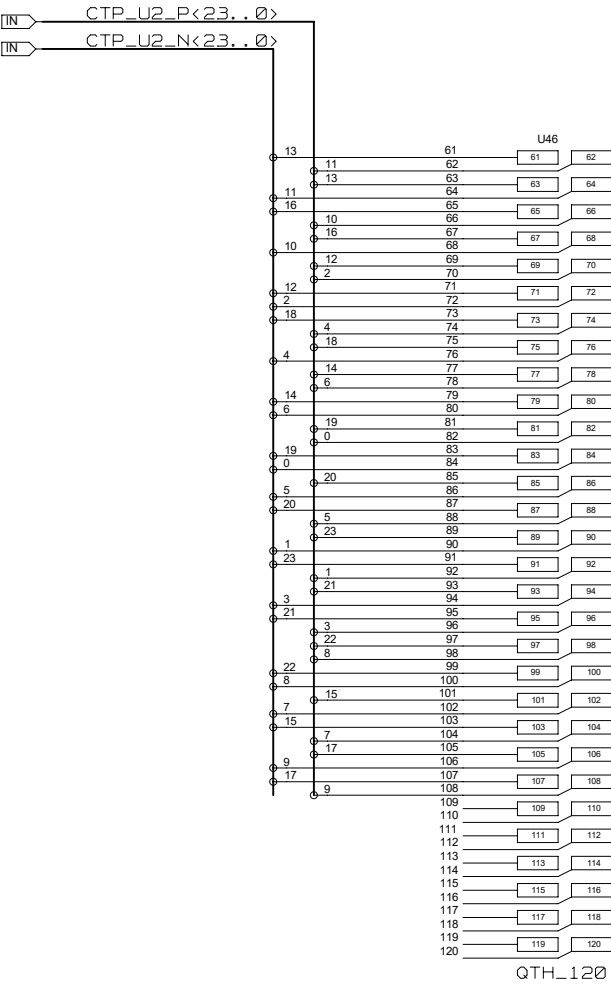
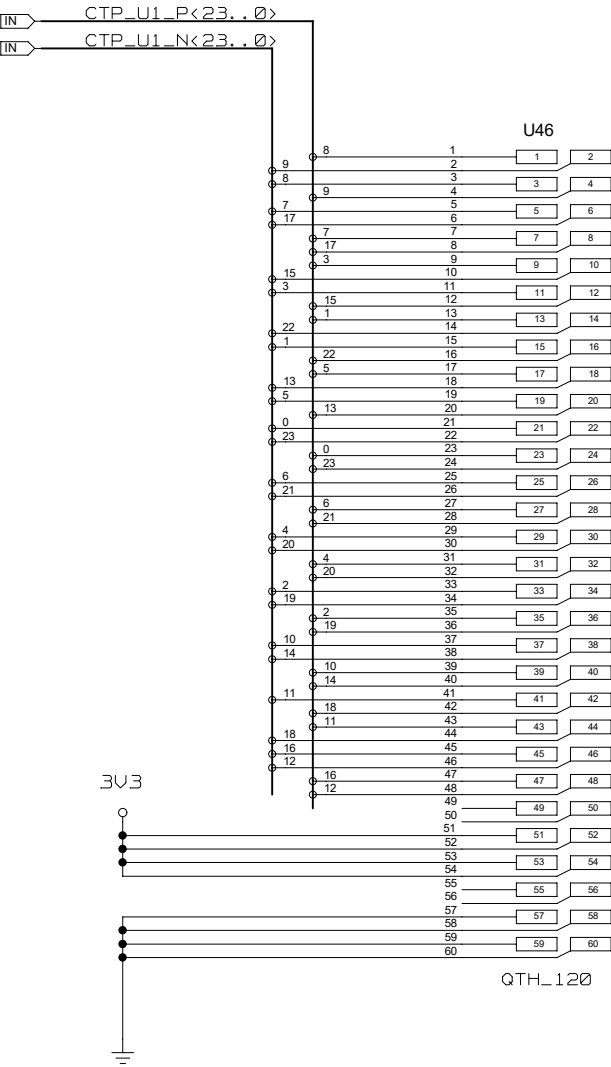


NAME	DATE	SIGN	DRAWING TITLE	
CHECKED	J. V. DE SOUZA		TOPO_L2	
CHECKED	U. SCHAEFER			
CHECKED	S. RAVE			
DRAWN	BAUSS	30.10.2015		
BLOCK TITLE			IPMC	
UNIVERSITY OF MAINZ			SIZE	DRAWING NO.
			REV.	
			SCALE	SHEET OF





CONNECTOR CTP MEZZ



				DRAWING TITLE	
CHECKED	J. V.DE SOUZA	DATE	SIGN	TOPO_L2	
CHECKED	U.SCHAEFER				
CHECKED	S.RAVE				
DRAWN	BAUSS				
BLOCK TITLE				CTP_MEZZ	
UNIVERSITY OF MAINZ				SIZE C	DRAWING NO.
				SCALE	SHEET OF